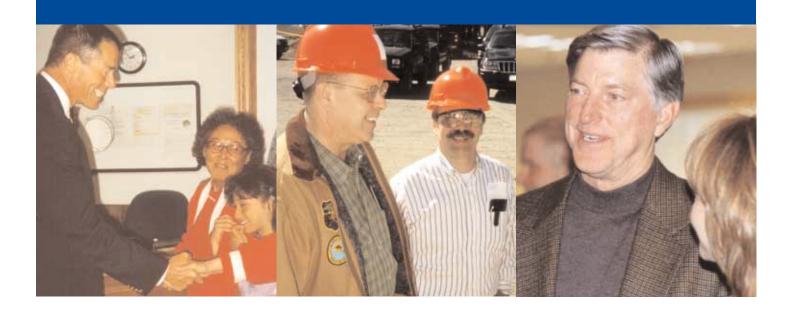


ALASKA HIGHWAY NATURAL GAS POLICY COUNCIL



REPORT TO THE GOVERNOR

EXECUTIVE SUMMARY

NOVEMBER 30, 2001

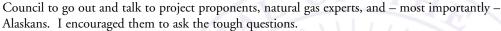
A Letter from Governor Knowles

November 30, 2001

Dear Alaskan,

The time is right to bring Alaska's North Slope gas to market. American consumers are demanding affordable, environmentally friendly energy and our state has the resources to deliver. A gasline project will provide good jobs for Alaskans, affordable energy for our communities and revenues to pay for vital services.

That is why last January I formed the Alaska Highway Natural Gas Policy Council and asked 28 distinguished Alaskans to examine how the state can promote a gasline project that maximizes benefits to Alaska. I asked the



The Policy Council's work exceeded expectation. The Council held comprehensive workshops to examine the issues surrounding gasline development. They heard from Alaskans during public hearings held in Fairbanks, Kenai, Anchorage, Tok, Barrow, Juneau and Valdez. Finally the members worked through a subcommittee process that culminated in a series of thorough and useful recommendations.

I am proud to receive this report. The Council's recommendations will be extremely helpful to me and my Administration as we continue to advocate for an Alaska Highway natural gas pipeline.

I thank the Council members for their exceptional hard work and dedication. This report will no doubt serve as a guide to Alaskans as we work together to make a highway gasline project a reality.

Sincerely,

Tony Knowles Governor



Table of Contents

- 2 Introduction: A Report to Alaskans
- 6 Public Hearings: Alaskans Speak Out
- 8 Subcommittee Report: Alaska Hire
- **10** Subcommittee Report: Access for In-state Gas Use
- **16** Subcommittee Report: Pipeline Ownership
- **18** Subcommittee Report: Environmental Considerations
- 22 Subcommittee Report: Federal/International Action
- **26** The Council Members

Note to readers:

This is the Executive Summary of the Alaska Highway Natural Gas Policy Council Report to the Governor. For more detailed information, please see the Council's complete report. To obtain a copy of the report, please call (907) 269-7450 or visit www.gov.state.ak.us/gascouncil.

Introduction: A Report to Alaskans

Through the spring, summer and fall of 2001 several hundred Alaskans met in community meetings around the state to advise our state's leaders on important issues involving natural gas policy and the construction of a natural gas pipeline from the North Slope to the lower 48.

The advice and information contributed in these meetings were distilled by 28 Alaskans - business, labor and local government leaders, legislators and state officials - appointed by the governor to the Alaska Highway Natural Gas Policy Council. The results of those efforts are the recommendations in this report.

Based on the advice received during these meetings from Alaskans as well as industry, expert consultants and state officials, the council believes:

• Arctic gas is critical to the nation's energy and economic security. Despite the extreme volatility in natural gas prices, long-term market trends continue to point to a strengthening in natural gas prices along with future shortages of domestic gas

supplies and deliverability. Our nation has a strategic energy security need to develop North American energy instead of relying on increased imports of oil and gas from foreign sources.

- A southern pipeline route through Alaska's Interior, the "Alaska Highway" route, will best serve the nation's and Alaska's interests. The Council believes the apparent cost advantages of an alternative northern "offshore" pipeline route are illusory because of construction challenges and probable environmental permitting delays posed by the difficult offshore Arctic ice-pack environment.
- The Council believes a pipeline could be economic and attractive to certain investors, assuming a long-term price of \$3 per thousand cubic feet (mcf) flat real prices. The Council believes there is an urgency to make the project move forward so that the projected long-term gap in North American supply is met by North American natural gas rather than supply imported from uncertain sources overseas.

Alaska Gas is Critical to the Nation's Energy and Economic Security

A paramount consideration is the importance to the security of the United States of natural gas delivered through a secure, buried pipeline from Alaska and Arctic Canada. Our nation is too dependent on oil imported from unstable and even unfriendly foreign nations. Increasingly, natural gas is being looked to as a substitute for oil.

Gas is also clean-burning, an important consideration in meeting the nation's goals for clean air.

Our nation faces a long-term shortage of natural gas, all experts agree. The regions which now produce gas cannot meet the projected long-term growth, and it is unlikely that other areas being explored, such as the U.S. Gulf of Mexico or Canada's eastern offshore provinces or western provinces, will meet all of those needs. Natural gas from many of the other sources in North America tends to have a faster rate of decline, while North Slope gas can be produced at constant production rates for a longer period of time, a distinct advantage for consumers who want surety of long-term supply. Arctic gas from Alaska and Canada can meet those needs.

Despite the extreme volatility of lower 48 gas prices over the last 18 months, most experts agree that by the latter years of this decade gas prices over the long term will be set by the cost of imported liquefied natural gas (LNG). This is expected to be between \$3 and \$3.50 per thousand cubic feet (mcf). It is this and not the current price gyrations that will determine the viability of the pipeline project.

Alaska gas is also economically important to the nation. Four billion cubic feet of gas, and potentially 6 billion cubic feet, can be delivered daily through an Alaska gas pipeline at an affordable price that will boost the economies of North America. Four billion cubic feet delivered daily will represent over 5 percent of the nation's estimated gas demand of 75 billion cubic feet per day at the end of this decade, a supply large enough to dampen or prevent future price spikes. Lower 48 consumers will benefit from a gasline delivering Arctic gas.

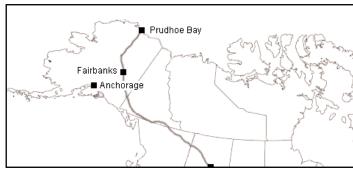


The Council toured the Phillips Alaska LNG Plant in May.

During construction, the pipeline will provide considerable jobs in construction, manufacturing and transportation to the nation's workforce, creating a payroll in excess of a billion dollars a year. The cumulative, long-term effect of bringing North Slope gas to market is estimated at 160,000 American jobs and a several billion dollar addition to our gross domestic product. At a time when our nation faces economic uncertainties, this project is of vital national importance.

A Southern Pipeline Route Will Avoid Delays and Speed Delivery of Alaska Gas

It is the Council's belief that a "southern," all-land pipeline route through Alaska's Interior and following the existing Alaska Highway will deliver gas earlier and at less cost to consumers than a "northern," offshore pipeline. A northern route would rely on construction technologies never attempted, at that scale, in a difficult Arctic offshore environment. Because of these challenges, the Council believes there will be no cost savings for the northern route. Summer icepack movements will challenge summer construction, and ice gouging of the ocean floor and ice



An Alaska Highway gas pipeline would travel from Prudhoe Bay to Fairbanks, and then along the Alaska Highway to Alberta to connect with the North American pipeline grid.

ridges in winter months pose a very difficult year-round operating environment. In addition, several Alaska Native groups and environmental organizations have voiced strong opposition to the northern route but have expressed support in working with the state and industry on southern route permitting. There will be a lengthy delay in permitting – if permits are ever obtained – for a northern offshore route under the Beaufort Sea ice.

A Gas Pipeline Will Strengthen and Diversify the State's Economy

As for its importance to Alaska, we find that this project, when constructed, will strengthen and diversify our economy by creating a new natural gas exploration and production industry on the North Slope, which will help extend the life of our existing oil fields. This will result in new revenues to the state, shrinking a projected future fiscal gap.

A gas pipeline will encourage the manufacturing in Alaska of products made from gas, similar to the way Cook Inlet gas led to local manufacturing of products such as fertilizer.

While the Council believes North Slope gas may someday be exported to Asia and the U.S. West Coast through a liquefied natural gas plant in southern Alaska, an all-land pipeline to the lower 48 appears more economically feasible as an initial project.

A gas pipeline could also bring clean, affordable energy to many Alaskan communities now dependent on fuel oil. Gas could also be brought to southern Alaska to meet future demands for gas in the Cook Inlet area, potentially extending the life of the industrial plants and making a larger LNG export plant possible.

Unless new significant gas reserves are developed, a shortfall in natural gas deliverability for peak winter demand is predicted for Southcentral Alaska by 2006-08. This shortfall in gas supply in Anchorage and the Cook Inlet area can be offset only by more expensive sources of natural gas or alternative fuels. In future years, the deliverability shortage will be more pronounced. North Slope gas can provide a long-term stable supply source to the main population center of Alaska.

Although there will be fewer construction jobs than the trans-Alaska oil pipeline in the 1970s, many Alaskans will find good employment. The project will stimulate training which will strengthen the skills of our workforce.



The Governor greets Barrow residents before the Council's hearing at the North Slope Borough Assembly Chambers.

A Southern, "Highway" Pipeline Route is Needed for Many of These Benefits

For many of these benefits to be realized, however, the pipeline will have to be built along a route through Interior Alaska and to the lower 48 through the Yukon Territory, the so-called "Alaska Highway" route. In our meetings around Alaska, we found Alaskans united in support of a southern route, with no public support from Alaskan communities for an alternative offshore, or northern, route that is also being studied by the North Slope producers.

An important consideration is how ownership of a gas pipeline is structured. First, the North Slope producers may wish to build, and own, the pipeline. Secondly, a consortium of pipeline, or gas transmission, companies could build and own the pipeline. In this case, producers would sign contracts with the pipeline companies for transportation of gas. A third option is a combination of one or more producers and pipeline companies in a consortium. A fourth possibility is for the Alaskan segment of the pipeline to be financed and owned by a vehicle such as a public authority. This authority would finance its share of a pipeline through access to capital markets much as pipeline companies would do. This vehicle could bring possible tax advantages, such as exemption from payment of State and Federal income tax.

There are advantages with each form of ownership. An advantage of producing companies doing the project is that they would be able to finance part of the project themselves. This could lower financing costs. Independent pipeline companies would look more to capital markets, but an advantage for the state is that these companies, which are in the transportation business, are typically more open to expanding the system to ship gas discovered in the future. (Producing companies traditionally build only enough capacity to meet their own requirements.) Additionally, pipelines in the lower 48 owned by pipeline companies sometimes ship gas at lower costs than pipelines owned by producers. A consortium that combines producing and pipeline companies might have the advantages of both forms of ownership.

The Council believes ownership of the Alaskan segment of the pipeline and construction of in-state gas distribution infrastructure by a public authority is an interesting idea that merits further study, as long as financing is drawn from private capital markets. There are some very significant challenges involved but the tax advantages mentioned earlier might make this vehicle an option in the event that the producers or gas transmission companies elect not to proceed with the project. The public authority vehicle may be applicable for smaller parts of the in-state gas infrastructure, such as spur lines off the main pipeline. This could be one way energy costs for Alaska consumers could be lowered.



The Gas Policy Council tours the BP Gas-to-Liquids test facility construction site in Nikiski:

(I-r, back row): Jack Roderick, Debra Ceffalio, Pat Pourchot, Rep. Mike Chenault, Tom Boedeker, Charles Coulson, John Ringstad, Angela Sorrentina, Barry Babyak, Jim Sampson, Tom Maloney.

(I-r, front row): Ken Freeman, Frank Brown, Michael Hurley, George Findling, Grace Schaible, Steve Fortune, Shane O'Leary.

Important Policy Issues Considered by the Council

Following seven Council hearings around the state and meetings of the five committees, 61 recommendations for State policy were developed, with supporting conclusions. They were adopted unanimously by the Alaska Highway Natural Gas Policy Council.

Some highlights among these recommendations include:

• The State should not invest directly in a gas pipeline project unless there is clear evidence of economic benefits to Alaska that cannot be achieved through other regulatory or political mechanisms. However, a public financing vehicle, such as a public authority, could play an important role in financing segments of the pipeline because of possible tax exemptions.

- The State's option to take its royalty gas in-kind must be retained. Sales of royalty gas to companies other than producers will foster competition, leading to greater values and more benefits to residents.
- Alaska must have a role in the review and approval of tariffs (transportation costs) and other charges affecting transportation of gas from the North Slope to Alaska communities. The Council recommends either Congress give the state Regulatory Commission of Alaska authority over intrastate gas issues similar to the State's authority over intra-state shipment of crude oil through the TAPS oil pipeline, or a joint board be created between the state's regulatory commission and the Federal Energy Regulatory Commission.
- The State should complete a thorough study of various approaches to in-state natural gas pricing of in-kind royalty gas.
- Several policy clarifications are necessary to enhance the value of the State's one-eighth royalty share of gas production, including basing value on actual market transactions rather than a formula (at least initially), and including sales of natural gas liquids in reported values.
- The southern, or Alaska Highway route is the environmentally preferred route.
- As allowed by North Slope oil and gas leases and existing statutes, the State should keep some of its royalty gas "in-value" by allowing the producers to market the gas and pay the State royalty payments. To increase natural gas marketing competition, however, the State should keep some of its royalty share of gas "in-kind" and allow third parties such as natural gas trading firms to market the gas to consumers.
- The experience with the Trans-Alaska Pipeline System must be drawn on. State and federal agencies must be adequately funded to perform the necessary oversight of pipeline construction and operation. Processes for effective public involvement need to be implemented.
- Training for Alaskans should be encouraged, and funded if necessary, to realize an important goal of using the opportunity of a large construction project to strengthen the skills of Alaskan workers.
- An important conclusion by the Council is that a connection for gas offtake on a high-pressure pipeline will be costly. Taps should be at strategic locations, or "hubs", along the pipeline, from which natural gas and natural gas liquids such as propane and butane could be supplied for local and regional distribution, and electricity could be generated and distributed. To meet clean energy needs in Fairbanks, Anchorage and other communities, spur gas pipelines could be constructed.
- Leases signed by the producers on the North Slope legally stipulate an implied covenant to market gas within a "reasonable time" and at a "reasonable price." It is assumed that 25 years since the start of production at Prudhoe Bay meets the reasonable time stipulation. Producers will thus have to sell their gas to pipeline companies or third parties if a "reasonable price" offer is made, and assuming other bid terms are acceptable.



• The State should ensure a southern or Alaska Highway route is mandated in any proposed federal gasline legislation and that Alaska's needs are appropriately addressed in the legislation. The Council supports modifications to modernize the Alaska National Gas Transportation Act and believes such modifications would be beneficial to an Alaska gasline project.

Carl Marrs addresses the audience at the Council's Barrow hearing.

ABOUT NATURAL GAS: What is natural gas?

Natural gas, crude oil and gasoline are hydrocarbons, a mixture of molecules composed of hydrogen and carbon atoms. The simplest hydrocarbon has one carbon atom with four hydrogen atoms stuck to it, CH4 methane, the fuel Cook Inlet residents use. Methane, ethane, propane, butane and pentane, which are typically in natural gas as it is produced, have relatively simpler hydrocarbon molecules compared to crude oil or gasoline, which are a mixture of bigger and more complicated hydrogen-carbon molecules.

What are natural gas liquids?

What we usually refer to as natural gas is predominantly methane, which is used mostly as fuel, but can also be used to make fertilizer and other products when the molecules are separated or "cracked." Methane is called "dry" gas, because at normal temperature and pressure, it remains in a vapor form. Ethane, propane, butane and pentane are referred to as natural gas liquids (NGLs) because they are often in liquid form at higher pressure or lower temperature. They are typically separated from the methane and sold separately. Wet gas is more valuable than dry gas because it contains more Btu value per given volume.

What is liquefied natural gas?

Liquefied natural gas, or LNG, is dry natural gas (mostly methane) that is chilled to extremely low temperatures so that it becomes a liquid that can be shipped in a tank, on a ship or even by truck or train. An LNG plant near Kenai now ships liquefied gas from Cook Inlet area fields to customers in Japan.

Natural Gas Policy Council Hearings: Alaskans Speak Out

In addition to meeting with industry experts and project proponents, the members of the Alaska Highway Natural Gas Policy Council traveled to seven communities across the state to talk to Alaskans about the proposed gasline project.

Fairbanks Residents Advocate for Local Access to Gas

The public hearing process began in April with a meeting held at the Fairbanks Chena River Convention Center. Over 200 Interior residents attended, including city officials, labor and business representatives and native leaders.

A common theme throughout the evening's testimony was the need to bring natural gas to Fairbanks for residential and commercial use. Many residents also expressed enthusiasm for the pipeline's potential to be an enormous economic boost to the region.

Steve Ginnis, president of the Tanana Chiefs Conference, spoke about the importance of native village involvement. Ginnis told the Council that because the highway route will cross Native lands, it is important that Native villages be represented on the planning committees. The villages also need access to the gas to reduce energy costs and improve living conditions.

Several business leaders also testified. "We do plan on building the next pipeline," said Bert Bell, President of the Association of General Contractors of Alaska. But Bell reminded Council members that the pipeline's labor needs must be known soon so training programs for Alaskans can begin.

Peninsula Residents Promote In-state Gas Use

In May, the Gas Policy Council saw the industrial uses of natural gas firsthand when they traveled to Kenai and toured the BP Gas-to-Liquids test facility, the Agrium fertilizer plant and the Phillips LNG plant. After the tours, the Council held a public meeting to hear from Peninsula residents. Kenai residents expressed their strong desire to bring North Slope natural gas to the Cook Inlet region to fuel existing industry and create new economic opportunities.

Speaking on behalf of the Cook Inlet Pipeline Terminus Group, Mike Navarre told the Council "seventy percent of the state's population lives along the corridor a pipeline would follow to Cook Inlet. It's the economic base of the state. An economy needs room to grow, and there is ample space for development in Nikiski, the Mat-Su area and along the Railbelt to Fairbanks," Navarre said.

John Williams, Kenai city mayor, spoke about the importance of using Alaska gas in-state. He urged the Council to propose changes in state law that would require as much gas as possible be processed in Alaska. BP's gas-to-liquids test facility in Kenai demonstrates the potential for gas to be used as a feedstock, Williams said.



Kenai Mayor John Williams testifies at a Council hearing.

Anchorage Residents Highlight Need for Gas to Cook Inlet

While the testimony at the Anchorage hearing was broad and varied, one theme emerged. Anchorage businesses and residents want to ensure that Cook Inlet has access to natural gas.

Tony Izzo, president and CEO of Enstar Natural Gas, told the Council that Anchorage has "one of the best gas utilities in the country, with new high-tech systems, 400 miles of pipelines and 2,400 miles of distribution lines." While Enstar has contracts pending to meet all its supply needs to 2006 and some of its needs to 2017, beyond that there are long-term supply concerns.

Steve Cleary, speaking on behalf of the Alaska Public Interest Research Group, said his members' concerns were those of consumers and utilities in the region. "In the next decade our members will need a reliable source of gas, and we think it must be North Slope gas."

Tok Residents Contemplate Impacts of Gasline

At a June hearing, residents of Tok expressed support for a natural gas pipeline route through their community to Canada, though they were leery of the possible impacts to their small community.

Most residents supported local access to the gas pipeline that could run through their community, but some pointed out that there will be costs associated with natural gas access, such as the cost of tapping the pipeline and building local distribution lines to several hundred widely scattered homes in the Tok community. Tok resident John Portscheller worried that the region could loose its rural character if the pipeline leads to development of local infrastructure and stimulates formation of a regional municipal government.

There were also comments about local hire for the project. One resident stressed the importance of hiring people from the local communities, not just residents of the state.

Overwhelming Opposition to the Northern Route Heard in Barrow

In July, the Council traveled to Barrow to listen to residents of the North Slope. Local government and village leaders told the Council emphatically that they will support a natural gas pipeline, only if it follows a southern route.

Speaking on behalf of the Alaska Eskimo Whaling Commission, Charlie Neakok, vice president of the Barrow Whaling Captain's Association said: "The Alaska Eskimo Whaling Commission is prepared to work cooperatively with the gas producers" if they bring the pipeline down the highway. "However, the AEWC and the whaling captains of all 10 whaling villages will oppose, absolutely, any attempt to build a gas pipeline through our Beaufort Sea."

Marie Carroll Adams of the Arctic Slope Native Association spoke about new research indicating subsistence foods help natives stay healthy. "We're finding out from recent studies that native people cannot live without subsistence food. It's killing us to eat non-native foods, and we need to protect those resources that keep us alive," Adams said.

Southeast Alaska Looks to Play a Role in Gasline Construction

At an August hearing in Juneau, residents of Southeast Alaska expressed enthusiasm for participating in the development of a gasline project.

Loren Gerhard, executive director of the Southeast Conference, told the Council that Southeast communities hope to play a role in gasline construction through logistics support. He pointed out that Haines, Skagway and Juneau are all well positioned to support gas pipeline construction.

Robert Venables, economic director of the City of Haines, told the Council that in addition to providing support services, Haines can be a site for manufacturing LNG for shipment to Southeast communities and possibly to Pacific export markets. There is a relatively short distance for a "spur" pipeline connection between Haines and the larger trunk pipeline.

Environmental advocates also attended the Juneau hearing to voice their opposition to a northern route. Sue Schrader of the Alaska Conservation Alliance, testified to her organization's strong opposition to the "over-the-top" route. "This route has the greatest potential for environmental impacts and will be vigorously opposed by the state and national environmental communities," Schrader said.

Valdez Residents Back Gasline to Prince William Sound

In August, the Council traveled to Valdez for its last public hearing and heard an in-depth presentation from the Alaska Gasline Port Authority outlining its proposal to use its tax-exempt status to develop natural gas. The Port Authority explained their economic model which shows a two-project "Y" line, a gasline to the lower 48 with a spur to an LNG facility in Valdez, to be viable.

Many Valdez residents spoke in favor of the Port Authority concept and in favor of bringing gas to Valdez. City manager Dave Dengel reminded the Council to look out for all Alaskans. He said that adding an LNG leg to the project will provide more benefits and opportunities to Alaskans.

Valdez Mayor Bert Cottle urged the Council to move forward with a gasline project that will bring inexpensive energy and economic opportunities to Alaskans.



In Barrow, the Council heard testimony about the importance of subsistence hunting in the Beaufort Sea. Here, former mayor Ben Nageak addresses the group.

Alaska Highway Natural Gas Policy Council Meetings

March 1

First full Council meeting, Anchorage

March 23

Council workshop, Anchorage

April 5

Council workshop, Anchorage

April 18

Public hearing, Fairbanks

May 17

Public hearing, Kenai

May 24

Public hearing, Anchorage

June 14

Public hearing, Tok

July 19

Public hearing, Barrow

August 2

Public hearing, Juneau

August 23

Public hearing, Valdez

September 7

Full Council meeting, Anchorage

September 25

Full Council meeting, Anchorage

October 31

Full Council meeting, Anchorage

November 30

Report presented to Governor, Anchorage

Alaska Hire/Buy/Build

Mike Navarre, Chair

Members

Jerry Hood, Rhonda Boyles, Jake Adams, Peg Tileston

Committee examined the following topics

- Use of the Alaska labor pool by contractors and subcontractors
- Use of Alaska businesses
- Training and readiness of Alaskans for jobs on a gas project
- Socio-economic impacts

Committee Meetings

- April 5, 2001, Anchorage
- August 2, 2001, Juneau
- September 25, 2001, Anchorage

Recommendation:

The committee believes Alaska residents and contractors should be employed on a gasline project when they are available and qualified. In turn, contractors should be encouraged to employ and train Alaska residents.

Recommendation:

The committee believes that Alaska hire language, similar to language from the BP/ARCO Merger "Charter Commitment," should be sought for the Alaska Highway natural gas pipeline and facilities. (Note: see full report for charter language.) It should be specifically stated that the quarterly report to the Department of Labor should include all contractors and subcontractors of the company or sponsor.

Recommendation:

The committee believes additional funding should be made available for vocational education training and should be coordinated with existing workforce training efforts now underway. Additionally, efforts should be increased to notify interested Alaskans of training opportunities available.

Recommendation:

The committee believes every effort should be made to ensure that needed gas production facilities are constructed at sites in Alaska.

Recommendation:

The committee recommends the state's Department of Community and Economic Development undertake a study to determine the socio-economic impacts of the gas pipeline along the Alaska Highway route. The Department has already begun implementation of this recommendation. (See full report for a draft "scope of work" for this study.) We recommend the scope of the study also be expanded to include impacts to local governments.

"We do plan on building the next pipeline. We need to compare pipeline construction needs to our current workforce needs."

Bert Bell, President, Association of General Contractors of Alaska, Fairbanks hearing

Conclusions and Narrative:

The committee held several hearings regarding the constitutionality of local hire laws. The record in Alaska on local hire litigation is not encouraging. We believe it will be difficult to construct local hire legislation that will withstand challenges under the U.S. and Alaska Constitutions (equal protection and privileges and immunities clauses). Additionally, a successful Alaska hire provision is complicated by the national and international scope of the project. Voluntary, cooperative efforts with industry seem to hold the most promise and should be pursued.

The number of jobs will be significant and will exceed the available capacity of Alaskan workers. The committee heard testimony that there is already a crisis situation being created because of the aging workforce in the oil industry, without factoring in the effect of a large-scale project like the gasline. There are coordinated efforts already underway, by industry, unions, native and tribal organizations, the Denali Commission, the University of Alaska and state agencies to address the training of Alaskan workers, and those efforts will require additional funding. The Alaska Human Resources Investment Council has developed a white paper that details a comprehensive approach to workforce training.

In addition to assuring labor stability, a project labor agreement will facilitate the further ramping up of union training programs, bringing more Alaskans into apprenticeship and skill upgrade programs. An ancillary benefit of the PLA is the legality of geographic preference provisions of collective bargaining agreements.

"Alaska workers and businesses are better positioned today than ever before to take advantage of the economic opportunities that the construction and operation of a gas pipeline would create."

Allen Todd, General Counsel, Doyon Limited, Fairbanks hearing

Committee members heard testimony from rural residents along the pipeline route expressing interest in job opportunities. We believe that issue is best addressed through notification, to interested Alaskans, of available training and through registering of interested workers and their skills. Construction training in rural Alaska has increased to an unprecedented level in the past two years through initiatives such as the Alaska Works Partnership, various labor organization programs, and the Denali Training Fund and other efforts funded by the Denali Commission. Continued support of these initiatives, which have resulted in training and employment of hundreds of rural Alaskans in construction, is essential if residents of communities along the pipeline and in areas of the state suffering economic dislocation due to fisheries problems, are to share in the economic benefits of the project. The Department of Community and Economic Development is already working with Native nonprofits to create accurate job banks, focusing on rural areas and villages.

The committee also obtained information regarding module related jobs for gas treatment facilities and compressors. The opportunity is tremendous and construction of modules at Alaskan sites should be vigorously pursued. It is estimated that the module related jobs and opportunities will be bigger than the Alpine, Northstar, Badami and MIX projects combined.



Council Co-Chair Jim Sampson talks with construction workers at the BP Gas-to-Liquids test facility.



Mike Navarre discusses local hire issues at the Kenai public hearing.

TERMINOLOGY GUIDE:

Definitions of terms used in this section

BP/ARCO merger charter

commitment: An agreement between the State of Alaska and British Petroleum regarding the State's nonobjection to BP's acquisition of Atlantic Richfield Corp. In the charter BP agreed to a variety of actions, including steps to train and employ Alaska workers and to build facilities in the state when possible.

Alaska Human Resources

Investment Council: A private/public advisory council that sets policies and makes recommendations on training and vocational education. The council's policies guide allocation of approximately \$80 million in federal training funds that come to Alaska annually.

Project Labor Agreement: A

collective bargaining agreement between a developer or project owner and construction trade unions establishing the terms and conditions of employment on a specific project, and to which all contractors utilized by the owner will be signatory.

Alaska Works Partnership: A

construction and maintenance training program conducted by Alaska building trades unions in partnership with rural communities and development entities.

Modules: Components of oil and gas (or minerals) processing facilities that are built at a construction site and moved to a remote oil field, or mine.

Alpine, Northstar, Badami, MIX projects: Large oil and gas module projects built in Alaska in recent years.

Access for In-State Gas Use and Future Opportunities Ken Thompson, Chair

Members

Carl Marrs (vice chair), Rhonda Boyles, Al Adams, Brian Davies, Jim Jansen, Jerry Hood, Bob Penney, Jack Roderick, Lee Gorsuch, Jeff Feldman, George Ahmaogak, Bill Corbus

Committee examined the following topics

- Supply/demand for in-state natural gas
 Best practices valuation/netback pricing methodology to facilitate in-state gas use
- Ensuring fair and transparent access rules to natural gas for Alaskan customers
- Benefits of natural gas development to rural Alaska and to communities along the pipeline
- Future options over 50 years for projects utilizing: gas-to-liquids (GTL), liquefied natural gas (LNG), natural gas liquids (NGL),

- petrochemical feedstock, fertilizer, etc. for in-state use or for export to markets in Asia or the West Coast
- Promotion or attraction of investment for in-state distribution and value-added processing
- Assess costs and benefits of the State taking delivery of its royalty share vs. taking royalty payments; review other states' policies for best practices

Committee Meetings

- April 5, 2001, Anchorage
- May 24, 2001, Anchorage
- August 2, 2001, Juneau
- September 25, 2001, Anchorage
- October 16, 2001, Anchorage
- October 26, 2001, Anchorage

Goal #1: Assess current supply/demand for in-state natural gas use and assess potential demand for expansion of current use as well as conceptual new uses.

Recommendation:

A long-term clean energy plan and vision needs to be developed for Alaska, providing for substantially increased use of natural gas for residential and industrial use and for power generation.

Recommendation:

The State should take a long-term, broad and strategic view of its entire natural gas resources. This should include areas on the North Slope, including non-producing areas, Interior basins and in south Alaska. There is a significant potential gas resource base in Alaska much larger than the 35 tcf proven natural gas reserves in existing fields on the North Slope.

Recommendation:

The State of Alaska should undertake more intensive, updated geologic and geophysical studies of the natural gas potential of current non-producing areas, including Interior and Southcentral Alaska basins. This should include a more thorough assessment of basin geology and natural gas generation and migration utilizing the most modern technology tools, as well as a more thorough assessment of the producible methane gas potential from coal seams within Alaska. In recent years new tools, such as satellite imagery and soil sampling techniques, have been developed. Another gas resource that should be assessed is gas from gas hydrates on the North Slope and in Interior basins, which are very sizeable and could be developed in future decades as technology advances.

Recommendation:

The State should evaluate incentives and policies to spur the exploration by private companies for natural gas, to better delineate the natural gas resources not only on the North Slope but elsewhere throughout the state. Strategies and plans should be implemented to attract additional companies interested in natural gas exploration who now utilize new technologies, to the North Slope, Cook Inlet, the Interior basins and elsewhere in the state.

Recommendation:

A major gas pipeline should traverse Alaska if the State is to fully exploit its longer-term resource from all basins over 50-plus years and also to gain access to future multiple markets over the long-term. In addition such a pipeline could ensure long-term, reasonably priced supplies of energy to the Railbelt and other areas of the state, thereby encouraging economic development.

Recommendation:

The State should facilitate favorable policies and incentives to encourage development by the private sector of a broader natural gas infrastructure within the state that meets the long-term clean energy demand of Alaskans at reasonable market prices.

Goal #2: Assess how natural gas or natural gas products can meet the clean and economical energy needs of communities along the pipeline route and in rural Alaska.

Recommendation:

The State should sponsor a comprehensive economic and environmental study of assessing fuel switching in certain Interior and rural communities from diesel to cleaner burning propane to provide information for the likelihood of economic natural gas "hub" propane processing facilities.

Recommendation:

The State should sponsor a comprehensive economic and environmental study of assessing broader electrical power distribution to certain Interior and rural communities to provide information for the likelihood of economic power generation plants near natural gas "hub" offtake points.

Recommendation:

The State should encourage private investors to initiate an economic study of creating one or more gas "hubs" for gas distribution, natural gas liquid processing, and/or power generation near Fairbanks, with a spur line to Anchorage and other "hub" locations that could distribute to Valdez and Southeast Alaska cities. This would foster a broader clean energy natural gas, propane and electrical distribution system within Alaska once a pipeline is endorsed across Alaska.

"My message to you is do everything possible to use as much of the raw product in-state; in our homes, in our cars...and in the many, many products we can create."

Kenai Mayor John Williams, Kenai hearing

Goal #3: Assess the costs or benefits of the State taking its royalty share "in-kind" for facilitation of in-state access and use.

Recommendation:

The State should retain its right to take its royalty share of gas on the North Slope "in-kind" or "in-value." This flexibility creates competition to maximize wellhead value for the State by either the producers or other firms such as energy trading companies interested in marketing the State's share of gas. The producers have requested a long-term commitment by the State and are asking the State to decide up front to take either "in-kind" or "in-value." The Council



Lt. Governor Fran Ulmer talks with Soldotna City Manager Tom Boedeker and State Rep. Mike Chenault. The residents of Kenai expressed to the Council the importance of future access to North Slope gas for the Peninsula.

TERMINOLOGY GUIDE:

Definitions of terms used in this section

Basin: A term usually referring to a region of sedimentary rocks ("sedimentary basins") that have potential for oil and gas discoveries. The "Cook Inlet Basin," for example, refers to the region, not just the offshore producing fields of Cook Inlet.

Natural gas generation and migration: Geologic terms referring to the creation of hydrocarbon fluids in underground rocks and the "migration" (movement) of the fluids into trapping mechanisms, potential reservoirs, in underground rocks.

Methane gas from coal seams:

Methane (the main component of natural gas) is a common emission from coal seams. It is a safety hazard in coal mines, for example.

Gas hydrates: Methane (gas) that is frozen as a solid phase in rocks, such as in the permafrost of the North Slope. As pressure is decreased and temperature increased, gas is released from the hydrate. Gas is not now commercially produced from hydrates, but research on their potential is under way.

Railbelt: A term referring to the state's major population areas of Southcentral and Interior Alaska that are served by the Alaska Railroad and other surface transportation infrastructure.

Propane: One of the natural gas liquids associated with gas production. It is sold as a pressurized liquid for fuel, and also has other uses.

Spur line: Informal term for a smaller pipeline connecting to a larger pipeline. For example, a pipeline connecting Anchorage, or Valdez, to a large-diameter pipeline along the Alaska Highway route is being referred to as a "spur" pipeline. The idea is that smaller "spur" pipelines would be built after the main, larger, pipeline is in operation.

feels the flexibility to switch on six months notice is very important, creates marketing competition, and ultimately maximizes resource value. The State should not negotiate away its right to take its royalty share of gas "in-value" or "in-kind."

Recommendation:

The State could maximize the value of its natural gas royalty resource with a mixed portfolio of "in-value" and "in-kind" sales, with in-kind royalty marketed by energy trading companies such as Duke Energy, Enron, Williams Energy or major companies like them. The State should put its royalty "in-kind" gas out for bid and seek bids from multiple parties for contract terms and price. Such contracts should ask for a "floor price" equal to or exceeding the average netback wellhead price achieved by the three major producers or from "in-value" sales as "insurance" that the energy trading companies are working in their marketing to beat the producers' gas sales realization.

Recommendation:

When there are out-of-state sales using an energy trading company, the energy trading company will reserve the capacity and the liability associated with that capacity, and that liability will not fall back on the State.

Recommendation:

The State may choose to direct market some portion of its gas to in-state consumers using State staff, but it is recommended that sales to customers in outside markets be handled by professional energy trading firms, considering the complexity of and rapid change in those markets. This would also allow those firms to absorb the risk of nominating pipeline capacity and buying hedging instruments to lessen risk on pricing of contracts.

Recommendation:

By keeping some portion of its royalty share of natural gas "in-kind," the State may be able to make some contract deals with consumers in-state at more favorable terms than the producers, as the State might realize added dollar benefits through jobs and corporate taxation of value-added processing such as natural gas liquids processing, petrochemical manufacturing, power generation, etc. that may not otherwise be economically viable to entrepreneurs within the state. However, there should not be a subsidy in sales of royalty-in-kind gas. The State should receive a netback price for royalty gas equal to or greater than the market-based "netback value" of gas on the North Slope.

Recommendation:

To the extent practical, the State of Alaska should enforce its "higher of" clauses on natural gas royalty as this could add value and ensure producers work hard in their marketing to obtain the best value in their sales of natural gas. When the State elects to take any share of its royalty gas "in-value," existing lease terms and statutes allow the State to receive royalty payments and production taxes on the "higher of" actual proceeds or market value. Other states, as well as the U.S. Minerals Management Service, are aggressive in ensuring all producers pay this "higher of" price for royalty and relevant taxes and receive such payments from the same producers that produce on the North Slope.

Recommendation:

Because of the complexities of the natural gas industry and the differences with the oil industry, the State should form a Natural Gas Services Group with people experienced in the natural gas industry, shipping, marketing, and trading so that the State becomes even more sophisticated in understanding deals and transactions that are often involved in the natural gas business. The group would provide an oversight function on sales of royalty gas out-of-state, but could also negotiate and manage in-state sales much like the Division of Oil and Gas now manages sales of royalty oil.

Recommendation:

For more cost effective development of in-state gas infrastructure resulting in more economical transportation of state royalty gas within the state, the State should encourage entities to examine the port authority concept of tax advantaged financing for a gas "hub," spur lines, and other distribution facilities.



Howard Mermelstein testifies at the Council's first public hearing in Fairbanks.

"A key component of the Alaska gasline must be how the rest of the state is going to benefit from North Slope natural gas."

Dave Dengel, City Manager, City of Valdez

Goal #4: Determine the "best practices" for methodologies to achieve transparency in netback pricing valuation at the wellhead and transportation to assure fair and favorable pricing for in-state gas business creation and expansion as well as for taxation and royalty calculations.

Recommendation:

The State should keep a natural gas price netback valuation methodology based on actual sales proceeds, or sales contracts, and not change to a formula linked to average prices in gas trading hubs or some other general formula at least for the first several years of major gas sales. The State's right under lease terms and statutes to obtain actual realized prices for its gas and natural gas liquids should not be negotiated away.

Recommendation:

With the growing natural gas liquids (NGLs) business in the U.S., the State should keep a natural gas liquids price netback of gas-line liquids based on actual sales proceeds, or sale contracts, of the liquids and not accept a value for the liquids based on a Btu adjusted basis of the gas stream unless there is clearly a higher value obtained by Btu-based sale. The State should be very sophisticated in its assessment and knowledge of the business of NGLs, as revenues from NGL sales will be a substantial part of revenues from the overall gas stream.

Recommendation:

Alaska statutes should be reviewed and updated to require information on sales spot transactions, sales contracts, actual transportation costs, and other information be made known to the State, much as statutes in Texas and other locations provide for. When updating these statutes the process should be clarified in a way that assesses the "lessons learned" on the Alaska oil valuation disputes and provides for more timely resolution of any differences in valuation.

Recommendation:

Alaska statutes should be reviewed and updated to require information on "affiliated sales" by producers be made known to the State, much as statutes in Texas and other locations provide for.

Goal #5: Recommend policies that assure clear and transparent rules for access to natural gas into and out of the gas pipeline for Alaska businesses and customers.

Recommendation:

The State must develop a clear and sophisticated understanding of the "open season" rules governing access to a contract carrier pipeline and devise strategies to facilitate access to the pipeline for firms exploring for or developing new gas discoveries on the North Slope or Interior basins.

Recommendation:

The State should incorporate in any federal legislation the right to gas access in-state. This right is provided in ANGTA but is not provided in the producers' recently proposed federal legislation.

Recommendation:

The State should first seek federal legislation that gives the Regulatory Commission of Alaska (RCA) authority to set tariffs for the transportation of intra-state gas used in-state similar to that authority given to the RCA for tariff review on the TAPS oil line. The state RCA should review applications for pipeline access within the state to ensure fairness in pre-determined fees and terms based on reasonable rates of return for investors who ship to in-state consumers.

TERMINOLOGY GUIDE:

Definitions of terms used in this section

Royalty share of gas: The State of Alaska, as landowner, receives a royalty, or share, of production. At Prudhoe Bay the leases provide for a one-eighth (12.5 percent) share. Oil and gas leases issued more recently provide for one sixth (16 percent) and sometimes one-fifth (20 percent) royalties.

In-kind, in-value: Under the terms of its leases, the State can take its royalty "in-value," allowing the producers to sell the oil or gas and pay the State cash. The State also has the option to take the royalty "in-kind," (physically taking control of the oil or gas). In this case the State sells the royalty oil or gas to another party. The practice is for the party buying the "in-kind" royalty oil or gas to arrange for transportation. When the State is paid "in-value" by the producers, they must transport the royalty oil or gas.

Floor price: A minimum price in a contract.

Average netback wellhead price:

"Wellhead price" is the value of the oil or gas at the well in the producing field. In Alaska it is determined by subtracting transportation costs from market sales prices. An "average" netback price is the weighted average of the netback prices reported by several leaseowners in a field, which can vary because leaseowners usually sell their oil or gas to different customers.

Energy trading company: A

company, or division within a company, that buys gas or oil from producers and sells to others. Energy trading has developed into a large, complex, sophisticated business in recent years.

Capacity: Physical space in a pipeline. A producer typically buys "capacity" in a pipeline to ship gas, for example.



Council member Ken Thompson addresses the group at the Fairbanks public hearing.

Recommendation:

Failing to achieve RCA obtaining sole authority in-state, the State should seek through federal legislation the creation of a joint board between the Regulatory Commission of Alaska and the Federal Energy Regulatory Commission (FERC) that would have authority to set tariffs for the transportation of intra-state gas used in-state. This joint board should participate in review of applications for pipeline access within the State to ensure fairness in predetermined fees and terms based on reasonable rates of return for investors who ship to in-state consumers.

Recommendation:

Alaska should consider including a "fairness" clause in the granting of State right-of-way approvals across state lands to guarantee fair access, similar to provisions developed by Texas for pipeline rights-of-way approved across state lands. Such a clause will give the State valuable leverage in negotiating fair access rules. The clause could also provide an avenue for appeal to the RCA in the event of disputes.

Recommendation:

The State should complete a thorough socio-economic study of various approaches to in-state natural gas pricing of in-kind royalty gas.

One approach is that the sales price of in-kind royalty gas or gas liquids to in-state users, whether private or State, be based on the market netback price of gas on the North Slope (which is determined by subtracting actual pipeline transportation costs from actual realized market sales prices in the lower 48 or other outside markets) adjusted for intra-state tariffs actually incurred for the transportation of the gas to the in-state access point, or hub, and then transportation costs to the consumer with allowance for a reasonable rate of return on investment. Price of gas or gas liquids to in-state users should not be based on comparisons with alternative fuels, such as diesel. Providing that

the intra-state tariff is determined on a prorated basis and not the "postage stamp" methodology, this policy will create a supply of reasonably priced, clean energy for communities in Interior Alaska, and ultimately Southcentral Alaska if a spur line is built. These more affordable natural gas prices would be passed along to consumers who purchase from a regulated utility but may not be passed along to consumers who purchase from a non-regulated company. A problem with this approach is that the State receives a potentially lower netback value than if the price is determined through competition with other fuels. This may favor the consumers in that area at the cost of lower State revenues. On the other hand, such an approach could mean more affordable natural gas to a large number of customers who purchase from regulated utilities, potentially enhancing economic development and quality of life for businesses and consumers.

Another approach is that the sales price of in-kind royalty gas or gas liquids to in-state users should be based on being competitive with the pricing of alternative fuels, as that may create higher netback prices resulting in higher royalty and tax revenues to the State. This would potentially increase the revenue received by the State but would not significantly lower the costs of consumers using this in-kind gas or gas liquids. However sellers other than the State could compete for these higher netback markets and so drive the price down well below the alternative fuels.

Goal #6: Assess pipeline sizing and the pipeline "contracted volumes" structure for growth of in-state use and/or potential future export markets to Asia and the West Coast, or expansion of deliveries to the lower 48.

Recommendation:

The State should investigate ways of working with pipeline transmission companies as investors to build in excess capacity, to provide space for transporting new gas that will be discovered on the North Slope or Interior basins.

Recommendation:

The State should evaluate innovations in using part of its "in-kind" royalty share in contract sales to energy trading companies who can bid for shipping capacity which then may be used in a creative way in the future to ship gas from new discoveries while the State elects at the time of new discoveries to change and sell the originally nominated royalty gas volumes "in-value."

Recommendation:

The State should seek an order by FERC, or federal legislation, for periodic open-season nomination periods, to allow for additional capacity to be built for new gas, when triggered by requests from existing or potential producers, transporters, shippers, customers or the State.

Goal #7: Evaluate conceptual options for future value-added projects during the 50-year life of gas reserves for in-state use and/or export to Asia and the U.S. West Coast.

Recommendation:

No one can rule out with certainty the viability of value-added processing of natural gas in Alaska over the next 50 years. Alaska should have a natural gas pipeline that allows this option to remain open. The previous recommendations regarding access, reasonable tariff and pricing, and capacity expansion will keep these options open.

Recommendation:

Gas and gas product markets are highly cyclical in price and somewhat cyclical in demand, and somewhat regional in nature; thus the State should facilitate a pipeline option that will allow access to multiple markets in the future.

Recommendation:

As markets change, the State should take a proactive role in encouraging investors to consider the possibilities for liquefied natural gas (LNG), gas-to-liquids (GTL), expanded uses of natural gas liquids (NGLs such as propane, butane) and downstream processing such as petrochemicals.

Goal #8: Determine strategies to promote and attract investment for in-state distribution and value-added processing.

Recommendation:

The State should develop and periodically update a formal marketing plan to attract investors in Alaska who may be interested in in-state gas distribution or development of value-added industries. Assisting with this could be an additional function of a new Natural Gas Services Group within the Department of Natural Resources.



Gas Policy Council Co-Chair Frank Brown talks with Fairbanks residents at a public hearing reception held at the Chena River Convention Center.

TERMINOLOGY GUIDE:

Definitions of terms used in this section

Nominating pipeline capacity:

When a producer "nominates," or proposes, to ship oil and gas through the pipeline. Pipeline companies usually have specific periods in which they accept such nominations.

Value-added processing: When "value" is added to a raw resource, such as oil or gas, by processing, refining or manufacturing it into another product, such as fuel, fertilizer or a petrochemical product. Since value-added processing or manufacturing is capital and often labor intensive, it brings new investments, jobs and tax bases into a region. Examples are plants making fertilizer and LNG near Kenai, and fuel refineries near Kenai, Fairbanks and Valdez.

Gas "hub": A connection to a gas pipeline where gas can be taken off. Gas is often bought and sold at hubs.

"Best practices" methodologies: Best procedures, best methods.

"Transparency": Clarity in terms and conditions; easily understood.

"Netback pricing valuation":

Determining a local value, for pricing purposes, of gas or oil by subtracting transportation (pipeline) costs from destination markets where the gas or oil is sold.

"Realized prices": Prices actually achieved in market sales (i.e. not value established through a formula).

Natural gas liquids: Components of natural gas other than methane, such as ethane, butane, propane and pentane. These are valuable, and are usually sold separately from the methane, which is used mainly as fuel.

Btu: British thermal unit, a common unit for measuring energy content.

State Pipeline Ownership and Tax Structure Bill Corbus, Chair

Members

Dave Rose, Ron Duncan, Grace Schaible, Mike Navarre, Ed Rasmuson, Mike O'Connor, Ken Thompson

Committee examined the following topics

- State promotion and facilitation of project financing State ownership
- Evaluation of State tax structure

Committee Meetings

- April 5, 2001, Anchorage
- May 24, 2001, Anchorage
- July 11, 2001, Anchorage
- August 13, 2001, Anchorage
- September 21, 2001, Anchorage
- October 3, 2001, Anchorage

Recommendation:

The committee believes the pipeline is economically feasible for certain investors and should be undertaken with private financing. We recommend against direct State investment unless there is clear evidence of economic benefits to Alaska that cannot be achieved through other regulatory or political mechanisms.

Recommendation:

The committee encourages exploration of creative financial structures to facilitate all or part of a gas pipeline and/or in-state gas infrastructure, provided such entities finance their activities through private markets.

Recommendation:

The committee recognizes that State tax policy is one of several tools that could play a role in influencing pipeline development, but reserves a decision. It is premature to decide how to use this tool until there is more definition of a project and the nature of its ownership.

"A project of this value can help improve community infrastructure. It's not unrealistic to think that better schools, transportation and health care can be a result of a project like the gas pipeline."

Steve Ginnis, President, Tanana Chiefs Conference, Fairbanks hearing

Conclusions:

- When the committee began its work early in 2001, there appeared to be certain problems that could be resolved by partial State ownership in a gas pipeline, and that it could be an important advantage for Alaska. However, through the process of gathering information and holding meetings, the committee has determined that most if not all of these could be resolved through other means, other tools the State has at its disposal. For example, access to and from a pipeline can be facilitated through the state Regulatory Commission of Alaska working with the Federal Energy Regulatory Commission, and through stipulations in a right-of-way lease across State lands.
- The committee believes a natural gas pipeline from Alaska would be a good investment, but there are other, equally good investment opportunities for public funds that entail less risk. The State has a policy of diversifying investment of its assets (the Permanent Fund is an example) to reduce risk.
- From information gathered during hearings, the committee has concluded that, absent majority or total ownership of a natural gas pipeline, an ownership interest gives the State no right to capacity in the pipeline. Capacity in a contract carrier pipeline is obtained through the nomination process during an "open season."
- The committee is not persuaded that partial ownership of the pipeline raises any conflict of interests for the State (i.e. a State "ownership" interest vs. a State responsibility to regulate the pipeline) that cannot be resolved.
- The committee investigated alternative sources of financing, including the Permanent Fund, Constitutional Budget Reserve and the ability of various public authorities to issue revenue bonds. The committee believes that private sector companies can raise needed funds based on adequate coverage and financing reserves. State participation would not enhance the acquisition of funds, would not necessarily guarantee lower financing costs and might unduly interfere with a straightforward private sector funding. The State's participation would include a vote on a tariff but its interest would not be proportionately large and it would not guarantee a desired outcome.



Council member Ron Duncan confers with Governor Knowles on State

- Absent a compelling public interest for partial State ownership, ownership of the pipeline is best left to private industry, and to firms which are experienced in oil and gas and the pipeline business.
- Alaska Native corporations, have the opportunity to invest in a natural gas pipeline project.
- mechanisms, the committee has been told by the producers' group that an investment in a gas

pipeline might not meet the rate-of-return criteria for the producing companies. If so, alternative financing mechanisms, such as through a public authority, might facilitate others, such as pipeline transmission companies, becoming involved. A public authority may have advantages in terms of exemption from federal income tax, or jurisdiction by the Federal Energy Regulatory Commission.

- Regarding tax policy, the producers are seeking simplification and clarity in natural gas tax and royalty administration.
- The Gas Policy Council itself has endorsed the governor's proposals for federal tax incentives, such as accelerated depreciation, an investment tax credit and a gas price volatility protection mechanism, a tax credit that becomes effective if prices fall below a certain point. The committee reaffirms this endorsement.
- The committee feels that if a viable proposal for a pipeline is put forward and the producers do not respond in a reasonable period of time, the State should use the tools that it has available to facilitate the project moving forward.
- The committee recommends finding a mechanism for a "contract" between the State and a sponsor of a gas pipeline project that would encourage a State fiscal policy as well as a stable State revenue policy. While there are legal limits to the Legislature's ability to guarantee future tax policy, such a contract would carry an important moral commitment, and would be worthy of consideration for an Alaska Highway gas pipeline.
- Different forms of pipeline ownership will affect the interests, and incentives, of the parties involved. Overall, the State has an interest in keeping costs of a pipeline down, and transportation tariffs lower, to maximize State revenues. (State revenues are based on the "wellhead" values of gas on the North Slope, after transportation.) If the producers build the pipeline, they will have an interest in maximizing production revenues, similar to the State, but will have less interest in keeping tariffs low because they are also pipeline owners. If an independent pipeline company consortium owns the pipeline, the producers' interests will be only in maximizing production revenues. In that scenario, the producers' interests would be aligned with the State's in seeking low tariffs for transportation of gas.

- The committee suggests that Alaskan-owned businesses, such as
- Regarding alternative financing

Contract carrier pipeline: A pipeline (usually gas) that has volumes committed for shipment. Pipeline owners design capacity to handle the volumes contracted for. Unlike common carrier pipelines (usually oil), owners of gas who have not contracted for pipeline capacity have no guarantee their gas will be shipped.

TERMINOLOGY GUIDE:

Definitions of terms used in this section

Regulatory Commission of Alaska (RCA): The state regulatory

commission that has authority to set

rates and make decisions affecting

regulates telecommunications and

water, sewer and solid waste fields.

Commission (FERC): The federal

shipments of natural gas, as well as

telecommunications and electricity.

regulatory commission that has

authority to set rates and make decisions affecting interstate

public utilities in the electricity,

Federal Energy Regulatory

intra-state pipelines. RCA also

Alternative financing mechanisms, such as a public authority: Publicowned entities like authorities are formed to carry out specific tasks, and are usually tax-exempt. Alaska's International Airport Authority is an example. The proposed Alaska Gasline Port Authority is another.



Bill Corbus, Brian Davies, Peg Tileston and Charlie Cole participate in the Barrow hearing.

Environmental Considerations Peg Tileston, Chair

Members

Brian Davies (vice chair), Esther Wunnicke, Lee Gorsuch, Grace Schaible

Committee examined the following topics

- Key environmental issues, both natural and human, associated with the construction of a natural gas pipeline.
- Recommendations for policies and procedures necessary to ensure that the design, construction and operation of the natural gas pipeline will proceed in an environmentally sound manner.
- Potential environmental benefits of a natural gas pipeline.

Committee Meetings

- April 5, 2001, Anchorage
- August 2, 2001, Juneau
- September 25, 2001, Anchorage

Recommendation:

Endorse the Alaska Highway gas pipeline route as the environmentally preferred pipeline route that minimizes the potential adverse environmental effects and maximizes potential environmental benefits to Alaska.

An Alaska Highway route would limit the gasline to an existing corridor, minimizing impacts to the environment as well as to fish and wildlife. It would also allow Alaska communities access to a cleaner, more efficient fuel. In addition, a highway route following the TAPS line would make oversight of both lines more efficient and effective. At hearings of the Gas Policy Council, Alaskans voiced overwhelming support for the environmentally preferred southern route.

A rigorous environmental review should be required. There are three approaches to this. The most expeditious approach but the one most susceptible to challenge is to meet the requirements of Section 5, subsection III of the President's Decision relating to the Alaska Natural Gas Transportation System which anticipated the development and public review of detailed plans to protect the environment using the best of current science and technology. The two other approaches are either a supplemental environmental impact statement (EIS) building on the ANGTS EIS or a full EIS done in an expedited manner using information from the ANGTS EIS. The outcome of any process should spell out for public review the alternatives associated with the highway route, the environmental pros and cons associated with them, and mitigation measures that should be taken to avoid or minimize adverse impacts.

Any frontier route would require a "start from scratch" approach, including collection and analysis of physical, biological and social data and determination of required technology.

Recommendation:

Adequately fund and staff a natural gas pipeline office that is housed in one place to facilitate communication, coordination and cooperation among all affected state, federal and Canadian agencies.

Lack of timely and complete communication among agencies can have severe consequences on any project, but can be particularly difficult in one of this size. A facilitated review of the JPO operation by all the involved agencies to note procedural changes they might recommend to improve effectiveness and efficiency would be beneficial. Acquiring personnel with the necessary technical and scientific expertise may be difficult for both federal and state agencies when competing with industry, which will be hiring for the same positions and will have considerably higher salary scales. Every effort should also be made to include the considerable number of borough and local agencies concerned with the various project alternatives, along with Alaska Native corporations, tribes, and villages that will be affected by a pipeline right-of-way (ROW).

Recommendation:

Recommend that the Gas Pipeline Office (GPO) conduct a thorough review of "lessons learned" from TAPS design, construction and operation. This review should include public comment and public participation. Use "lessons learned" to develop procedures for the gas pipeline that ensure past mistakes are avoided and successes repeated.

A natural gas pipeline following the TAPS/Alaska Highway corridor will have many environmental concerns similar to those of the earlier project. Certain differences need to be identified and addressed, such as the effect of a buried, chilled pipeline crossing beneath streams, geologic and hydrologic data for areas where TAPS is not buried, and design and operational differences between a low-pressure, hot oil line and a high-pressure, cold gas line. In addition, Canadian and other high-latitude gas pipelines should be studied for lessons learned.

Recommendation:

Establish an open and available data and information process for the public, agencies and industry.

Frustration and suspicion take hold when individuals, organizations and communities are unable to get information on issues of concern in a timely and appropriate manner. Such a process should start at the beginning of the project and make available all non-proprietary material. Meaningful involvement by affected communities is important. Effort should be made to include all stakeholders, not just decision-makers. Websites, e-mail addresses and information repositories, such as local libraries and borough offices should be used to disseminate information. A central site, preferably the Alaska Resource Library & Information Services (ARLIS), should be used as effectively as possible and adequately funded. An information clearinghouse such as the Exxon Valdez Oil Spill Library (which is now consolidated in ARLIS) could be an appropriate approach.

Recommendation:

Establish mandatory training for all personnel involved with the gas pipeline project.

Timely, appropriate and sufficient training is vital for all personnel associated with a major project. Such training should start with applicable federal, state, and local laws and regulations, agency mandates and responsibilities, enforcement options and penalties for noncompliance, best practices and appropriate technologies. Government and industry should coordinate to ensure commensurate levels of training for the public and private sectors, including all contractors and subcontractors. Sessions to update personnel as the project progresses should be included, along with required orientation for those joining it.

"We strongly oppose all proposed natural gaslines from Alaska's North Slope that invade frontier wilderness ecosystems with new routes and new infrastructure."

Sue Schrader, environmental advocate, Juneau hearing

Recommendation:

The state should take a long term view of the gas pipeline to minimize environmental concerns.

In view of the likely long life of this project, the state should encourage a long-term view be taken in design, construction, operation and maintenance in order to mitigate environmental risks over the entire life of the project.



Department of Natural Resources Commissioner Pat Pourchot discusses the role of his department in the pipeline permit review process.

TERMINOLOGY GUIDE:

Definitions of terms used in this section

Trans-Alaska Pipeline System: The formal name of the trans-Alaska oil pipeline, also informally referred to as the "Alyeska" pipeline. TAPS is operated by Alyeska Pipeline Service Co. but is owned by North Slope oil and gas producing companies plus Amerada Hess and Williams.

Joint Pipeline Office: A central office established by State and federal agencies responsible for pipeline oversight and regulation. Federal and State agency staffs with similar responsibilities work together, improving coordination and efficiency.

ABOUT NATURAL GAS: What is "Gas-to-Liquids?"

Gas-to-liquids, or GTL, refers to a chemical conversion technology developed in the 1920s that converts natural gas into a liquid product from which environmentally "clean" refined products, such as diesel, can be made. A great deal of highly guarded research is now focused on improving GTL technologies so commercial plants can be developed economically. BP has a pilot GTL facility in Nikiski.

Why is natural gas a clean fuel?

Natural gas (methane) is the cleanest fuel because it has the fewest number of carbon atoms compared with hydrogen atoms relative to other fossil fuels and far fewer contaminants too, such as sulfur. nitrogen compounds, and heavy metals. Oil or coal have more carbon atoms. When burned, the carbon combines with oxygen in the air and becomes carbon dioxide, a gas suspected as the main contributor to global warming. The hydrogen combines with oxygen in the air and becomes water vapor. Because methane molecules have fewer carbon atoms than other fuels. less carbon dioxide is emitted when methane is burned.



"Our tribal council supports responsible development of natural gas – as long as it's not done through our ocean."

Patsy Aamodt, President, Native Village of Barrow, Barrow hearing

Patsy Aamodt, President of the Native Village of Barrow, testifies to the Council.

Recommendation:

A records management system for compiling and maintaining complete and updated documentation should be in place at the beginning of the project and maintained and updated throughout the life of the pipeline in accordance with professional document control standards. The State must have copies of all documents.

The TAPS experience has shown that older engineering drawings, including "as-builts" and documents confirming original facility configurations and placements, have not always been readily accessible by pipeline managers and regulators when needed. Establishing a professionally designed and maintained document control system will help to ensure that accurate records from every phase of pipeline development remain rapidly retrievable under unforeseen future circumstances. Recent advances in technology will undoubtedly aid this process.

Recommendation:

Assure that effective and adequate monitoring and enforcement systems are in place at the start of the project and continue throughout the life of the pipeline.

Adequate funding will be needed to ensure that a sufficient number of appropriately trained agency personnel are available for monitoring and enforcement throughout pipeline construction and operation. Agency personnel without a working knowledge of pipeline construction, operation, and maintenance will have little credibility with their industry counterparts. Training of agency personnel associated with all aspects of the pipeline should be integral to the project. Such training should emphasize the prevention and early detection of problems, and understanding of regulations, codes and penalties. Enforcement of regulations and codes is essential but will not occur without trained personnel who are actually available on site.

Recommendation:

Direct the GPO to establish a comprehensive citizen's involvement plan. This effort may include the creation of a citizen advisory council with representatives from communities affected by construction of the pipeline.

A determined effort should be made to aggressively involve and engage affected communities during the planning and construction phase through a coordinated federal/state effort. If necessary as determined by the federal/state plan, a citizen advisory council should be formed and adequately funded to receive and evaluate information and respond to pertinent issues. If established, the council would also evaluate their role following construction of the pipeline.

The public involvement process should also include a full review, including stakeholder involvement, of proposed federal grant and state lease right-of-way provisions and stipulations.

Recommendation:

Provisions should be incorporated into ROW lease agreements to ensure that adequate dismantling, removal and restoration (DR&R) funding will be available for the Alaska segment of the natural gas pipeline.

The actual DR&R provisions will depend on ownership of the pipeline and should take into consideration the true long life of the asset.

Recommendation:

Perform a full security review and develop a comprehensive and detailed security plan early enough to influence the pipeline design and alignment process.

Heightened security concerns throughout the United States should be reflected in the engineering design and alignment of the natural gas pipeline, which will be a significant part of America's domestic energy supply. Any aspect of the design of pipeline facilities and structures that would be particularly vulnerable to sabotage, such as compressor stations, bridge crossings and aboveground valve housings, should receive attention from a security standpoint early in the design process, and not as an afterthought. This concern applies also to the alignment, which may present opportunities for modifications or adjustments that will minimize the potential for harm.

Recommendation:

Continue to ensure that environmental scientists and permitting specialists work side-by-side with design engineers and construction planners from the earliest stages of the project through to its completion.

It is essential that environmental safeguards be built into the design of the project, not added as an afterthought to satisfy regulatory requirements and stipulations. Preliminary engineering design products will be used to support major permit applications with long lead times and must contain fully integrated environmental features at that early stage. This can best be accomplished if environmental and permitting specialists work on the same teams and in the same facilities as the engineers.

Recommendation:

The State of Alaska ROW lease should require long-term environmental surveillance and monitoring, and annual reporting. This function should continue throughout the life of the pipeline.

Recommendation:

The GPO, in cooperation with the federal government, should continue to coordinate the trans-boundary aspects of construction, operation and maintenance of a gasline, including operations control and emergency response.

Although it may cross land belonging to two nations, the gas pipeline will be a single integrated system. Emergencies, whether structural, operational or environmental, will not respect the international boundary. The U.S. and Canada must establish integrated control protocols that can regulate the pressure and flow of gas through the pipeline as a single system and thus

respond quickly and effectively to emergencies. This will require open communications, shared data, and a close working relationship between personnel of both nations. The State should look to other international pipelines, particularly between Canada and the United States, for models in handling the trans-border oversight aspects of construction, operation and maintenance.



Steve Arbelovsky of Phillips explains to the Council the properties of liquid natural gas.

quid natural gas.

ABOUT NATURAL GAS: How much gas do we have?

Alaska's North Slope is estimated to hold about 35 trillion cubic feet (tcf) of proven natural gas reserves. Twenty-six tcf of this is in the gas cap of the large Prudhoe Bay oil field. The remainder is mostly in the undeveloped Point Thomson gas field east of Prudhoe Bay, and in other oil fields on the Slope.

Geologists think there could be as much as 100 tcf, or more, of gas that can be discovered and commercially produced on the Slope, and more gas in unexplored areas of Interior Alaska.

Until recently, exploration on the North Slope was for oil. However, gas was discovered during the course of that exploration.

Companies are now exploring exclusively for gas, and geologists are confident more will be found.

What competitive advantages does Alaska have in marketing its gas?

The large gas reserves on the North Slope are proven by drilling and ready to produce. In other places, like Canada's Mackenzie Delta and the U.S. Gulf of Mexico deep offshore, more exploration and development must be done to prove reserves. The North Slope gas reserves are a certainty, and are the largest proven undeveloped gas resource in America.

Alaska will also be a dependable and secure source of long-term supply for the nation. Gas from the Canadian Arctic could also fill some of this need. The alternative to a gasline is more dependence on imported liquefied natural gas (LNG) from uncertain and possibly unfriendly foreign sources.

Federal/International Action Charlie Cole, Chair

Members

Esther Wunnicke, Bob Penney, Jon Rubini, Jeff Feldman, George Wuerch

Committee examined the following topics

- Federal permitting/access
- Federal agency lead
- Canadian permitting/access
- Other contractual considerations

- Domestic markets competing sources/sharing of the market
- Canadian national and territorial relations

Committee Meetings

- May 24, 2001, Anchorage
- August 2, 2001, Juneau
- September 7, 2001, Anchorage
- September 25, 2001, Anchorage

Members of the Gas Policy Council were extensively involved in decisions on State policy and in the development of proposed legislative changes. A substantial product of the Federal/International Action Committee were recommendations for changes to federal law to address key concerns of the State of Alaska in the development of a natural gas pipeline.

The committee supports modifications to modernize ANGTA and believes such modifications would be beneficial to an Alaska gasline project. The committee endorsed 10 key policy goals that should be included in any new gasline legislation.

The 10 policy goals developed to guide drafting of the legislation were debated by the full Council and ratified in concept by a majority of its members on September 25, 2001. Several changes were made as a result of points raised by Council members during the September 25 debate.

If Congress moves forward with new legislation as suggested by the producers, a principal concern of the Council is that Congress should take steps early to reaffirm the southern, or Alaska Highway, route as the sanctioned route for a natural gas pipeline, as a previous Congress did in 1977 when it ratified the President's choice of the southern route under the Alaska Natural Gas Transportation Act. Such a step would focus the attention of industry and federal agencies on regulatory and permit approvals for a project along this route.

This committee also notes that a southern route provides several advantages over other alternatives. Among these is use of the pipeline corridor for other purposes, including the possibility of constructing a railroad or other utilities over time. In addition, a southern route could facilitate access to highly mineralized areas which are located in close proximity.

A second concern of the Council was the probability that with a new initiative in Congress, an Alaska gas pipeline would be subject to Federal Energy Regulatory Commission jurisdiction on issues important to Alaska without a defined role for the state with the FERC. Such issues would include tariffs on intra-state shipment of gas, and access to and from a pipeline. The proposal for a joint board that would give the Regulatory Commission of Alaska joint jurisdiction with FERC on issues affecting Alaska grew out of this concern.

Other concerns of the Council involved provisions to encourage hiring of residents of Alaska for a gas pipeline project, and the hiring of Alaskan Natives.

"Alaska resources should be developed to benefit Alaskans."

Robert Wilkinson, CEO, Copper Valley Electric Association

It was recognized by the Council that the pipeline project will be substantial and that, for all practical purposes, qualified Alaskan workers wishing to work on the project will be employed. Still, an explicit encouragement to hire locally will be a strong inducement for companies and unions to train Alaskans for pipeline-related construction and operating jobs. The skills developed in the Alaskan workforce as a result of training and employment will thus be a lasting legacy of the project.

The Council also considered the importance of pipeline access and the need for future open seasons to facilitate pipeline access for new discoveries. Failure to provide for additional capacity either at startup or through future open seasons could create a "monopoly" on pipeline capacity, discouraging exploration by non-owners. Any new gasline legislation must address this issue to protect the interests of the State of Alaska.

Other policy points guiding development of proposed legislation are detailed later in this report. The committee recognizes the governor's strong advocacy of the 10 principles, as reflected in his recent testimony before the Senate Committee on Energy and Natural Resources and in other forums. It would appear that the State's policy position is well understood by decision makers in Congress and the Federal Executive Branch.

With this in mind, the committee believes that it would be useful for the State Administration to continue its efforts with the commercial parties to develop a market driven solution to transport Alaska natural gas to market via the Alaska Highway route.

Close coordination and communication between the State, the North Slope producers and the pipeline companies could facilitate the establishment of a consortium of companies with the financial capability to build the pipeline.

In our opinion, current discussions among the parties concerning economic feasibility and reestablishment of the previous pipeline partnership underscore the need for such coordination at this time.

Background on Canadian Relations

First Nations

The Kaska First Nations located in Northern British Columbia and the Yukon continue to negotiate land claims and self-government agreements with the Government of Canada and the Province of British Columbia. While these negotiations are expected to continue for the foreseeable future, speculation is that when the time is right, the Kaska will be open to a side agreement on any proposed pipeline running through their territory.

The eight First Nations who have land claims along the proposed route of the Mackenzie Valley pipeline have been negotiating with producers since late spring of 2001. Early in October of 2001, seven of the eight groups came to an agreement on ownership sharing of any pipeline built through their territories. This agreement would grant 30% ownership to the First Nations Bands. The eighth, the De Cho, refuse to sign the agreement. While the Minister of Indian Affairs and Northern Development has been quoted as saying that one Band cannot hold a veto over any project, the De Cho believe that they have the right to refuse construction on lands they claim.

Position of the Government of Canada on Arctic Gas Production and Transportation

The Government of Canada has affirmed that in relation to this project, all departments and agencies will maintain route and project neutrality. In the spring of 2001, the Prime Minister set



Governor Knowles, Mayor Boyles and Charlie Cole listen to testimony at the Fairbanks public hearing. Interior residents expressed their strong need for access to natural gas.

TERMINOLOGY GUIDE:

Definitions of terms used in this section

ANGTA: Alaska Natural Gas Transportation Act, passed by Congress in 1976, which designated the Alaska Highway route for a North Slope pipeline and selected a consortium led by Northwest Energy, of Utah, to build the pipeline. (Foothills Pipelines now owns rights to the system.)

ANGTS: The Alaska Natural Gas Transportation System is the formal name for the Alaska Highway pipeline project approved by Congress in 1977.

North Slope gas producers:

Companies that own rights to produce gas. Major Alaska gas producers are BP, ExxonMobil and Phillips. The State owns 1/8 royalty.

Tariffs: Charges, or fees, charged by pipeline owners to firms or entities shipping natural gas.

Intra-state: Referring to shipments within one state, as opposed to interstate shipments from one state to another.

First Nations: Term under Canadian law for Native American groups.

Gas liquids: Valuable components of the natural gas stream, such as ethane, butane and propane.

Petrochemicals: Industrial products made from hydrocarbon (gas or oil) feedstock.

ABOUT NATURAL GAS: Why is gas in demand?

Mainly because of its clean-burning characteristics, a major advantage in meeting clean-air requirements, and because gas-fired turbines for electricity generation have improved in efficiency, with sharply lowered costs. In the long-term, demand for gas used to generate electricity is expected to grow, although demand for gas for industrial and home-heating will also continue to grow.

up a Cabinet reference group to study the current state of Canada's energy policy. The main issue of study was whether to express a preference for one route over another. A number of Cabinet Ministers expressed support for either the "over-the-top" route or a two-pipeline route with the construction of the Mackenzie Valley line happening first. After careful consideration of all available information and a careful review of the regulatory implications of each option, the Cabinet reference group recommended to the Prime Minister that the original position of route and project neutrality be maintained.

Provincial and Territorial Positions

Of the four non-federal jurisdictions involved in the issue, only the Yukon Territory is firmly supporting the Alaska Highway route. While they have not been overly aggressive in the past, they intend to become more aggressive in promoting the route with the Canadian Federal Government. The Yukon Government has commissioned an economic study of the benefits to Canada of constructing and operating the Alaska Highway route and it is expected that this study will be released to the public in January of 2002.

The Northwest Territories is aggressively promoting the Mackenzie Valley line either in conjunction with an "over-the-top" segment or as a stand-alone line. Assuming the latter is chosen by producers, the Northwest Territories is demanding that this line be built before an Alaska Highway gasline. They are very active with the Federal Government asking for financial incentives to ensure the line's construction.

The other two jurisdictions involved, British Columbia and Alberta, have remained route and project neutral. Premier Klein of Alberta has said that regardless of what line is built, he will not allow a "bullet line" to cross his province. He demands that Albertans share in the long term economic prosperity created by a line to the lower United States. Principally, he is referring to gas liquids and would like to see the petrochemical industry in his province benefit from them.

While it would seem logical for the Government of British Columbia to be supportive of the Alaska Highway route, this government has only been in power since June 2001 and this issue has yet to be critically examined by the Premier and his Cabinet.

Recommendations:

The committee endorsed 10 key policy goals that should be given consideration in any new federal gasline legislation. The 10 principles and corresponding legislative provisions are outlined below.

Key Principles

- Find that the Alaska Highway natural gas pipeline is in the national interest.
- Mandate the already permitted Alaska Highway route as the preferred route.
- Provide opportunities for new pipeline participants, such as existing producers, pipeline companies, and major Alaska companies.

Corresponding Legislative Provisions

- The 1976 Alaska Natural Gas Transportation Act (ANGTA) that established a process selecting the ANGTS project following the Trans-Alaska Pipeline and the Alaska Highway through Canada to the lower 48 should be the framework for any new gasline legislation.
- The legislation should provide for updating and modernizing the process provided in ANGTA for the expeditious environmental review and approval of a pipeline application for the Alaska Highway route.
- A finding that an Alaska Highway route would make an important long-term contribution to the nation's energy supplies and independence.
- A finding that an Alaska Highway route would have less potential environmental impacts and related delays in construction.

Key Principles

 Provide a mechanism for Alaska communities and businesses to obtain access to natural gas from the pipeline.

Corresponding Legislative Provisions

• FERC should require the project sponsor to demonstrate how the sponsor plans to meet reasonable projections of in-state local consumption needs, including the needs of Fairbanks, Cook Inlet, and rural Alaska. In addition, the sponsor should allow for possible future construction of a pipeline to tidewater for the export of LNG.



Al Adams discusses federal legislation with Ken Freeman and Mayor Rhonda Boyles.

- The Regulatory Commission of Alaska should have concurrent jurisdiction with FERC to set just and reasonable rates for the shipment of natural gas over the Alaska section of the gasline for in-state users.
- The Regulatory Commission of Alaska should have exclusive jurisdiction to set just and reasonable rates for any lateral pipeline connected to the Alaska section of the gasline that serves in-state users.

Key Principles

• Provide access to the pipeline for new natural gas discoveries that will keep Alaska's oil and gas industry healthy through new leasing, exploration and production.

Corresponding Legislative Provisions

- FERC should require the project to establish reasonable plans and procedures, including additional open seasons if necessary, for the expansion of the Alaska section of the gasline as new fields of natural gas are developed on the North Slope and throughout Alaska.
- FERC should be authorized to order expansions of the gasline in the future under reasonable, non-discriminatory terms.

Key Principles

- Provide for Alaska hire and Alaska Native hire.
- Provide for the use of Alaska businesses.

Corresponding Legislative Provisions

- To the extent allowed by law, Alaska residents and contractors should be employed when they are available and qualified. In turn, contractors should be encouraged to employ and train Alaska residents.
- Recruitment should be accomplished primarily by advertising in-state and using Alaska's job service organizations to notify the Alaskan public.
- The project sponsors must, whenever feasible, enter into construction contracts with Alaska firms and fabricate modules in Alaska.
- The gasline sponsors should be required to enter into an agreement to provide for pre-employment recruitment, on-the-job training and employment of Alaska Natives.

Key Principles

• Provide for a project labor agreement for the construction and maintenance of the pipeline, and for worker training.

Corresponding Legislative Provisions

- The project labor agreement should require all contractors and employees to agree to a total ban on strikes, lock-outs and other disruptive activities for the life of the agreement.
- The agreement should be designed to ensure a steady supply of skilled labor and a contractually binding means of resolving worker grievances.

Key Principles

• Provide a priority for the use of American and Canadian steel.

Corresponding Legislative Provisions

• Only steel manufactured or produced in the U.S. or Canada should be used in the construction of the Alaska section of the gasline unless its use is inconsistent with the public interest or the cost is unreasonable. Factors to be considered in evaluating the public interest should include quality, availability and delivery times.

Key Principles

• Provide for economic incentives to give investors in ANGTS additional levels of confidence.

Corresponding Legislative Provisions

- Accelerated depreciation on gasline investments.
- An investment tax credit for an approved ANGTS project.
- A tax credit for producing gas from the Alaska North Slope tied to a price floor.

ABOUT NATURAL GAS: What are we doing with the North Slope gas?

Produced gas in the Prudhoe Bay field is reinjected to conserve it and help produce more oil, as well as to fuel production facilities. Gas, oil and water come out of the ground together and must be separated. The separated gas is injected back into the underground reservoir to maintain pressure, which drives the oil to the surface. Some natural gas liquids, pentane, hexane, and so on, are mixed with crude oil being shipped through the TAPS pipeline and then sold, while other NGLs are mixed with other molecules, like CO2, ethane and propane, and reinjected into the ground to enhance oil recovery.

Who are Alaska's main competitors?

It is assumed that gas from other areas of the U.S. and Canada are not really long-term competitors with Alaska because ultimately all North American gas will be needed to meet demand. Alaska's short-term competitor is thought to be imported liquefied natural gas and gas from Canada, because if an Alaska gas project is delayed, small LNG import projects and continued development in Canada could incrementally fill market gaps that Alaska gas could have filled.

Council Members

The Co-Chairs



Frank Brown

Before retiring in 1999, Frank Brown was a senior vice president for ARCO Alaska, where he was responsible for the Kuparuk Field and the initial development of the Alpine Field.

Prior to his Alaska assignment, Brown was president of both the Thums Long Beach Company and ARCO Long Beach Company. The companies were in a risk sharing joint venture with the State of California to produce and market the State's oil and gas in the Long Beach Unit. Currently, Brown is a director of Grey Wolf, Inc., a provider of land drilling services. He is also president of Fairweather International, a consulting company focusing on Alaska North Slope opportunities.

Brown graduated from Louisiana Tech University. He has served on the Anchorage Opera Board and has been actively involved in numerous United Way campaigns.



Jim Sampson

Jim Sampson served two terms as mayor of the Fairbanks North Star Borough from 1991 to 1997 and was the State of Alaska commissioner of labor from 1986 to 1990. Sampson is currently chair of the Alaska Permanent Fund Corporation Board of Trustees and is a director with the Alaska State AFL-CIO and Alaska Works Partnership, a firm committed to training Alaskans for jobs in the construction industry.

Sampson is a 42-year resident of Alaska. He has served on the Board of Directors of the Alaska Housing Finance Corporation and as chairman of the Alaska Labor Relations Agency and Workers' Compensation Board.

The Executive Committee



Charlie Cole

Charlie Cole has had a long and distinguished career in Alaska. He began practicing law in Alaska in 1954 and has kept his private practice ever since. From December 1990 to January 1994, Cole served as the State's Attorney General under then Governor Walter Hickel. As Alaska's top attorney, he negotiated the settlement of the Exxon Valdez lawsuit on behalf of the state and its residents.

In recent years Cole has served on numerous boards and task forces, giving much of his time to help solve the policy issues facing Alaska. He recently participated in Governor Knowles' subsistence summit and has served on two other subsistence task forces.

Cole earned a B.A. and a J.D. degree from Stanford University. He had a distinguished career in minor league baseball.



William Corbus

William Corbus is president and general manager of Alaska Electric Light and Power, an investor-owned electric utility providing electric service to the City and Borough of Juneau.

Corbus has served on the Alaska State Pension Investment Board and currently sits on the board of First National Bank of Anchorage. His civic involvement has included work with the Juneau Boy Scout Council, Juneau Hospice and Homecare and Catholic Community Service.

Corbus was an officer in the United States Navy and served in Vietnam. He earned a degree in industrial engineering from Stanford University and a Master of Business Administration from Dartmouth College. He is also a registered electrical engineer.



Mike Navarre

Mike Navarre served in the Alaska State Legislature for over 10 years, where his leadership positions included finance committee chair (1991-92) and house majority leader (1989-90). He was later elected as mayor of the Kenai Peninsula Borough.

Navarre is currently the president of ZAN, Incorporated, a company that owns and operates nine Arby's Roast Beef Restaurants in Alaska. He also serves as the chair of the State of Alaska Royalty Oil and Gas Advisory Board and as president of the Boy's and Girl's Clubs of the Kenai Peninsula. He is a member of the Kenai, Soldotna and Nikiski Chambers of Commerce and is on the Nature Conservancy Board.

Navarre is a graduate of Eastern Washington University.



Ken Thompson

Ken Thompson is president of Pacific Rim Leadership Development, an Anchorage company that provides management and leadership consulting services to corporations, churches and nonprofit organizations.

Prior to his current position, Thompson spent 26 years with ARCO in positions ranging from president of ARCO's Exploration and Production Research and Technology Center to president of ARCO Alaska, Inc. Thompson also worked as an ARCO executive vice president, responsible for the company's global natural gas marketing and gas operating companies in Alaska, California, Indonesia, China, Singapore, Malaysia and Thailand.

Thompson sits on the boards of Alaska Airlines and Alaska Air Group. He is involved in community service through organizations such as United Way and the Anchorage Museum Foundation. He serves on the Board of Trustees for Alaska Pacific University.



Peg Tileston

Peg Tileston is president of Tileston and Associates, an Anchorage research and information retrieval business. Tileston is also chair and co-founder of Alaska Common Ground, an organization seeking consensus on public policy issues in Alaska. She is a board member of the Alaska Conservation Foundation and was appointed to the Governor's Alaska Oil and Gas Policy Council in 1996.

Tileston served 15 years on the Alaska Water Resources Board and 10 years on the Chugach Electric Association Board. She was the co-founder of Trustees for Alaska, an environmental public interest law organization.

Tileston is a graduate of Earlham College. She has been widely recognized for her community involvement and was named a woman of achievement by the YWCA in 1997.

Council Members



Al Adams

Al Adams served nine years in the Alaska State House of Representatives and 10 years in the Alaska State Senate. His distinguished legislative career included eight years as chair of the House Finance Committee and six years on the Senate Finance Committee. Adams retired from legislative service in 2001 and is currently the manager of economic development for the North Slope Borough mayor's office.

Adams' business experience includes serving as president of Kikiktagruk Inupiat Corporation and executive vice president of Nana Regional Corporation. He also served on the Alaska Native Claims Appeals Board.

Adams, a life-long Alaskan born in Kotzebue, graduated from Mt. Edgecumbe High School and the University of Alaska, Fairbanks.



Jacob Adams

Jacob Adams has been the president of Arctic Slope Regional Corporation (ASRC) since 1983. As president, Adams has led the corporation through a period of intensive diversification and remarkable growth.

Adams began his career with ASRC in 1971 when he was elected to the company's first Board of Directors. He has served on the board ever since.

When he was only 21, Adams won election to the Barrow City Council. When the North Slope Borough was organized in 1972, he was elected to its first assembly. Adams was later appointed to succeed the late Eben Hopson as mayor. Adams served on the assembly until 2000.

Adams, a successful whaling captain, helped form the Alaska Eskimo Whaling Commission.



George Ahmaogak, Sr.

George Ahmaogak, Sr. is currently serving his fourth term as North Slope Borough mayor. He first held the office from 1984-1990 and was elected again in 1993. During his tenure as mayor, Ahmaogak has spearheaded a variety of innovative initiatives including the Mayor's Jobs Program which provides employment opportunities to local Barrow residents while allowing them to maintain their subsistence lifestyle.

Prior to his first term as mayor, Ahmaogak was president of the Ukpeagvik Inupiat Corporation, the village corporation for Barrow. He has also served as the head of Piquniq Management Corporation. Later Ahmaogak was elected to the board of Arctic Slope Regional Corporation.

Ahmaogak is a successful whaling captain and a graduate of Mt. Edgecumbe High School in Sitka.



Rhonda Boyles

Rhonda Boyles was elected Fairbanks North Star Borough mayor in October 2000. A businesswoman and restaurateur, Boyles has been a leader in the Fairbanks community for over 25 years.

Boyles has served as director of the Greater Fairbanks Chamber of Commerce and sat on the Board of Directors of the Alaska State Chamber of Commerce. Her service has been honored by the University of Alaska, Fairbanks, who named her business leader of the year in 1999.

Throughout her career Boyles has taken a special interest in higher education, serving on a variety of boards including the University of Alaska College of Fellows, the University of Alaska Statewide Vocational and Technical Education Advisory Council and the Tanana Valley Campus Council.



Brian Davies

Brian Davies was involved with BP's development and operation of the North Slope oil fields, particularly Prudhoe Bay, for almost 23 years. Before coming to Alaska in 1971, Davies worked as a geologist and a petroleum engineer in the Southern North Sea, Abu Dhabi and Colombia.

Davies retired from BP in 1994 and is currently a part-time consultant. He is also involved with several Anchorage nonprofit organizations including the Anchorage Symphony Orchestra, Anchorage Museum, Alaska World Affairs Council and The Nature Conservancy of Alaska.

Davies grew up in Herefordshire, England and went to Trinity College, Dublin where he graduated with a degree in geology.



Ronald Duncan

Ronald Duncan is a founding member of GCI and has been the company's president and CEO since 1989. Duncan is a board member and past chairman of the Anchorage Economic Development Corporation and is current chairman of the Alaska Science and Technology Foundation. Prior to starting GCI, Duncan founded Alaskavision, an Alaska-based cable television company, and was a partner at Lyall Associates, a management and economic consulting firm. He has also served as an assistant director at the Johns Hopkins University Center for Metropolitan Planning and Research and as a special assistant to Congressman John Dow.

Duncan received a bachelor's degree in economics from Johns Hopkins University and a master's of business administration from Harvard Business School.

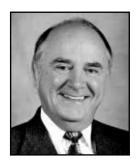


Jeffrey Feldman

Jeffrey Feldman is a partner in the Anchorage law firm Feldman and Orlansky. Prior to entering private practice, Feldman served as an assistant public defender for the Alaska Public Defender Agency and as a law clerk to Justice Edmond Burke of the Alaska Supreme Court.

Feldman has held a variety of professional appointments, including chairman of the Alaska Commission on Judicial Conduct and member of the Governor's Task Force on Civil Liability Reform.

Feldman obtained a B.A. and a J.D. degree from Northeastern University. In 1998, Feldman was awarded the Alaska Bar Association Professionalism Award and he twice received the United States District Court for the District of Alaska Public Service Award. In 1993, he received the ACLU Public Service Award.



Lee Gorsuch

Lee Gorsuch has been chancellor of the University of Alaska Anchorage since 1994. As chancellor, he oversees five colleges and schools on the Anchorage campus, the extended college campuses and the statewide delivery of education programs to the military.

From 1976 to 1994, Gorsuch led the Institute of Social and Economic Research (ISER). Later he served as the dean of the School of Public Affairs at UAA.

Gorsuch earned his undergraduate and graduate degrees in economics and community development from the University of Missouri at Columbia. He is a former president of both the Anchorage School Board and the Alaska Association of School Boards. Currently he serves on the board of Commonwealth North and the Nature Conservancy of Alaska.



Jerry Hood

As the leader of Alaska's Teamsters Union, Jerry Hood administers the collective bargaining needs of some 7,000 Alaskans. He was named secretary-treasurer of Teamsters Local 959 in February 1994 and has been elected to that position three times. Hood chairs the Union's Executive Board, the Alaska Teamster-Employer Welfare Trust and the Alaska Teamster-Employer Pension Trust. Hood also serves as special assistant on energy to the General President of the International Brotherhood of Teamsters James P. Hoffa.

Hood, who has long been active in civic and community affairs, is a member of the Anchorage Chamber of Commerce, Commonwealth North and the Resource Development Council. He also serves on the Board of Directors and Executive Committee of Arctic Power.



Jim Jansen

Jim Jansen is the president and CEO of Lynden Inc., an Alaskan transportation company.

Raised in the town of Lynden, Washington, Jansen grew up in the trucking and construction business. He served as a heavy equipment operator in the Navy and completed a tour of duty in Vietnam. Jansen came to Alaska in 1967 and worked hauling copper ore at Kennicott. Jansen joined Lynden full time in 1970, becoming president and CEO in 1983.

Jansen holds a degree in business administration from Central Washington College. He is a 12,000 hour commercial pilot, an assistant hunting guide and avid fisherman. He serves as a director of Wells Fargo Bank and is a past board member of the Special Olympics World Winter Games.



Carl Marrs

Carl Marrs has been with CIRI for more than 28 years, serving in a variety of positions before becoming president and CEO. A respected Alaska business leader, Marrs has repeatedly been named one of the top 25 most powerful Alaskans by the Alaska Journal of Commerce. He was also recently given the 2001 Alaska Federation of Natives Citizen of the Year Award.

Marrs currently sits on the boards of the Fiscal Policy Council of Alaska, Alaska Railroad Corporation, and Alaska Communications Systems Group, Inc. He is the president of the Association of ANCSA Regional Corporations Presidents/CEOs, Inc., a member of the Alaska SeaLife Center Board of Governors, a trustee of Alaska Pacific University and a member of the Anchorage Daily News Board of Advisors.



Mike O'Connor

Mike O'Connor has over 25 years management experience in oil and gas related construction projects. He is president of Peak Oilfield Service Company, an Alaskan-based general contractor that specializes in oilfield construction, rig moves, pipe fabrication, heavy hauling and equipment maintenance. O'Connor also oversees Precision Power Company and Peak's other subsidiaries.

O'Connor is active in the community, serving as a campaign coordinator for the United Way of Anchorage and a board member of the Alaska Support Industry Alliance. He has also volunteered for the Alaska Special Olympics and the 2001 World Winter Games.

O'Connor holds a bachelor's degree in civil engineering from Ohio State University and is a certified professional engineer.



Bob Penney

Bob Penney is the owner of Penco Properties, an Anchorage-based real estate brokerage company specializing in real estate development and property management. His development experience includes single and multi-family residential projects, commercial properties, retail buildings and land development in five western states.

Penney has a long history of community involvement in Alaska. His service has included work with the Anchorage Economic Development Corporation and Alaska Regional Hospital Board of Trustees. Penney is a past president of the Anchorage Chamber of Commerce and helped found the Resource Development Council.

A lifelong sport fisherman, Penney is the founder of the Kenai River Sportfishing Association and the Kenai River Classic. He was recently appointed to the North Pacific Fisheries Management Council.



Edward Rasmuson

Edward Rasmuson is a third generation Alaskan who began his career at National Bank of Alaska in 1956 as a summer employee. After graduating from Harvard University, he joined the bank full time and achieved successive promotions as the manager of several branches and later vice president. In 1974 he became president and in 1985 was appointed chairman of the board. Currently he is chairman of Wells Fargo Bank Alaska.

Rasmuson was a member of the University of Alaska Board of Regents for 14 years and is a past president of the Rotary Club and the Boy Scouts of Alaska, Western Council. He currently serves on committees at the University of Alaska Foundation, Alaska Pacific University and Providence Hospital.



Jack Roderick

Jack Roderick has had a long and varied career as a resource developer, public policy maker and writer. A resident of Alaska since before statehood, Roderick founded many small oil and resource-related businesses, including Alaska Exploration Corporation, Petroleum Publications and Alaska Industry magazine. As a consultant to Alyeska Pipeline Services Company during the early 1970s, Roderick assisted the company in settling Native land claims. Roderick was Greater Anchorage Borough mayor from 1972 to 1975 and later was deputy commissioner of the Alaska Department of Natural Resources.

A graduate of Yale University, Roderick also received an M.A. from Harvard University and a J.D. from the University of Washington. His book, *Crude Dreams: Oil and Politics in Alaska*, was published by Epicenter Press.



Dave Rose

Dave Rose is chairman and founder of Alaska Permanent Capital Management Company, the first major money management firm in Alaska designed to serve Alaska institutional investors. Before forming his own firm, Rose served ten years as the first executive director of the Alaska Permanent Fund Corporation. His professional career also includes leading the Alaska Municipal Bond Bank and revitalizing the Alaska Industrial Development and Export Authority.

Rose was the first chairman of the Anchorage Municipal Assembly and has received numerous awards for his dedication to public service. He currently serves as vice chair of the Alaska Pacific University Foundation and as a member of the Anchorage Concert Association Endowment. Rose earned an accounting degree from Queens College and an MBA from Syracuse University.



Jonathan Rubini

Jonathan Rubini is the managing partner of Foster Pepper Rubini & Reeves LLC, an Alaska law firm. He focuses his practice on public finance and general corporate law. Rubini is also currently chairman and chief executive officer of JL Properties, Inc., an Anchorage-based real estate development and management firm.

Rubini's past professional experience includes working as a partner with the firm Birch, Horton, Bittner & Cherot. He also served as a law clerk to Justice Allen T. Compton of the Alaska Supreme Court and as an assistant attorney general for the State of Alaska.

Rubini earned a B.A. from Brown University and a J.D. from Boalt Hall School of Law, University of California, Berkeley.



Grace Schaible

Grace Schaible is a retired attorney and a respected civic leader. During her time in private practice, Schaible was known for accepting pro bono cases. In 1987, she became the first woman to hold the office of Alaska Attorney General.

Schaible is a past chair of the Alaska Permanent Fund Corporation Board of Trustees and a former member of the University of Alaska Board of Regents. She has served on the Fairbanks Chamber of Commerce Board and as president of the University of Alaska Foundation. In 2000, Schaible was honored by the State Chamber of Commerce for her life-long contributions to Alaska.

Schaible graduated from the University of Alaska Fairbanks and earned a law degree from Yale University.



George Wuerch

George Wuerch was elected mayor of Anchorage in May 2000. Prior to taking office, he served on the Anchorage Municipal Assembly for five years.

Wuerch served as an officer in the U.S. Marine Corps for 20 years. After retiring from the Marines he became manager of governmental affairs for the Northwest Alaskan Gasline. In 1984 he moved to Alaska to become founder and president of Fluor Daniel Alaska Engineering. Later he joined Alyeska Pipeline Service Company as a vice president.

Wuerch holds a degree in engineering technology from Oregon State University and a master's degree from the U.S. Naval Postgraduate School. His community involvement has included service as chairman of the Anchorage Chamber of Commerce and chairman of the United Way Campaign.



Esther Wunnicke

Attorney Esther Wunnicke began her distinguished career in public service as an assistant attorney general for the State of Alaska. In 1983, Wunnicke was appointed commissioner of the Department of Natural Resources. Wunnicke's federal service in Alaska has included work with the Federal Field Committee, the Federal-State Land Use Planning Commission and the Department of Interior Mineral Management Service.

Since retiring from the Department of Natural Resources in 1986, Wunnicke has served on the State Commission on Human Rights, the Oil and Gas Policy Council and the Alaska Rural Governance and Empowerment Commission.

In 1991 Wunnicke and a group of citizens formed Alaska Common Ground, a forum for Alaska citizens to address long-term public policy issues.

Ex-Officio Members of the Alaska Highway Natural Gas Policy Council

Fran Ulmer, Lieutenant Governor, State of Alaska Rick Halford, President, Alaska State Senate

Brian Porter, Speaker, Alaska State House of Representatives

Georgianna Lincoln, Senator, Alaska State Senate

Ethan Berkowitz, Minority Leader, Alaska State House of Representatives

Bruce Botelho, Attorney General, Department of Law Michele Brown, Commissioner, Department of Environmental Conservation

Wilson Condon, Commissioner, Department of Revenue Ed Flanagan, Commissioner, Department of Labor and Workforce Development

Patrick Galvin, Director, Division of Governmental Coordination

John Katz, Director of State/Federal Relations, Office of the Governor

Joseph Perkins, Commissioner, Department of Transportation and Public Facilities

Pat Pourchot, Commissioner, Department of Natural Resources Frank Rue, Commissioner, Department of Fish and Game

Deborah Sedwick, Commissioner, Department of Community and Economic Development

Staff to the Council:

Ken Freeman, Executive Director

Debra Ceffalio, Communications Coordinator

Erika McConnell, Project Assistant







From top: Barrow dancers welcome the Council to the North Slope; the Council staff reviews final meeting documents: Co-chairs Jim Sampson and Frank Brown participate in the Fairbanks hearing with Governor Knowles.

From the Co-Chairs

Dear Alaskan,

It has been an honor to co-chair the Alaska Highway Natural Gas Policy Council, a diverse group of distinguished and knowledgeable Alaskans. All 28 Council members deserve recognition for the long hours and hard work they dedicated to this effort.

We would like to thank Governor Knowles for the opportunity to serve on this Council. By giving Alaskans a meaningful opportunity to discuss the issues surrounding natural gas development, the Council has helped create a growing momentum and excitement for an Alaska gasline project.

We were impressed with the thoughtful testimony we received from the many Alaskans, project proponents and industry experts who made presentations to our group. Alaska is fortunate to have so many knowledgeable people working to develop our natural gas resources. We'd also like to thank the mayors, civic leaders and others who so graciously welcomed the Gas Policy Council into their communities.

Finally, we'd like to thank the staff of the Governor's office and other departments for their work, as well as the many legislators who worked with us along the way. A special thank you to Lieutenant Governor Ulmer and members of the Governor's Gas Cabinet for their dedication to this project.

One key theme emerged during our work – the importance of unity. Alaskans prosper when Alaskans work together. We urge the Administration, Legislature and congressional delegation to continue to work together to ensure that Alaska's needs are put first as we develop our gas

Sincerely,

Frank Brown Jim Sampson

Co-Chair



In Memorium

Rosemarie Maher, 1947-2001

In July, the Council mourned the passing of Council member Rosemarie Maher, a beloved friend and respected colleague.

Rosemarie was the president and chief executive officer of Doyon Ltd. Maher had served on the board of the Interior Native corporation from 1979 until she was named president in January 2000. She replaced Morris Thompson who retired from Doyon in December 1999. She also served as co-chair of the Alaska Federation of Natives from 1997-2000 and on the Alaska Board of Game during the late 1980s and early 1990s.

Maher was born in a canvas tent at a fish camp on the Nabesna River in 1947. She grew up in Northway and learned the traditions of the Upper Tanana Athabaskans. Maher is remembered as a woman who could move easily between the corporate and village life. She was a respected leader who cared deeply for the people she served. She will be missed by many in Alaska.

Efforts to Develop North Slope Gas Have a Long History

For almost 30 years - since oil was first discovered on the North Slope - oil and gas companies and Alaskans have been working on ways to market large gas reserves on the slope. In 1970, the Arctic Gas consortium, mainly U.S. pipeline companies and large gas utilities, proposed a land pipeline east from Prudhoe 1970 Bay, crossing what is now the coastal plain of the Arctic National Wildlife Refuge, to Canada's Mackenzie Delta. The pipeline would then run south along the Mackenzie River Valley to connect to the existing U.S. and Canadian pipeline grid. In 1974, El Paso Natural Gas proposed an "all-Alaska" pipeline across the state to a proposed liquefied natural gas (LNG) plant in 1974 southern Alaska. El Paso wanted to ship LNG to the U.S. West Coast. In 1976, Congress passed the Alaska Natural Gas Transportation Act (ANGTA), designating a special process for a Presidential Finding to select a pipeline route, and for expedited permitting. In 1977 the Canadian government decided against the Arctic Gas plan, citing unsettled Native land claims along the Mackenzie River route of the pipeline as the main reason. A second consortium formed to build a pipeline on an alternate route parallel to the oil pipeline to the Fairbanks area, then southeast along the Alaska Highway into B.C. and Alberta. This group included Canadian as well as U.S. companies. In 1977 President Jimmy Carter approved the Alaska Highway route as the approved corridor for a North Slope gas pipeline. Canada followed suit with similar legislation, and the "Alaska Highway" route was given official blessing by both the U.S. and Canadian governments. It was designated the Alaska Natural Gas Transportation System (ANGTS). Through the late 1970s and early 1980s, partners in the ANGTS group spent hundreds of millions of dollars on engineering, environmental work and permits. In 1982, plans to build the ANGTS were suspended when the project partners were unable to agree on a financing plan, given the high 1982 costs of the project. Concerned that Alaska North Slope gas would be "stranded," two former Alaska governors, Walter Hickel and William Egan, and several Alaska businessmen formed Yukon Pacific Corp. to resurrect El Paso's idea for a pipeline across Alaska to an LNG plant. Unlike El Paso, Hickel envisioned shipping the LNG to Asia. For almost a decade, Hickel and Yukon Pacific were the only promoters of an Alaska gas project. In 1992, North Slope producers decided to take a new look at a trans-Alaska gas pipeline and an LNG export project. A joint study team 1992 was formed by the major gas owners, ARCO, BP and Exxon. In 1995, after tens of millions of dollars were expended in new studies, the joint study team was disbanded. The companies pursued gas 1995 marketing individually. ARCO continued to investigate LNG exports, while Exxon concentrated on its new gas-to-liquids technology as a possible way to market North Slope gas. In 1998, the Alaska Legislature passed the Stranded Gas Act, establishing a framework for negotiation of special fiscal terms for an LNG 1998 export project. In 1999, ARCO formed a proposed "sponsor group" of itself, Phillips Petroleum, Foothills Pipelines, Marubeni Corp. and Yukon Pacific. 1999 Yukon Pacific eventually withdrew from the group and BP joined it. After the BP-ARCO merger, Phillips assumed ARCO's share of the project. This group is still at work, focusing now on finding synergies between an LNG project and the proposed all-land pipeline to the lower 48. In 2000, the three North Slope producers, BP, ExxonMobil and Phillips (heir to ARCO Alaska), formed a joint group to study pipeline 2000 routes to the lower 48. Their work, expected to cost about \$100 million, is still underway.

consortium and present a plan for a pipeline to the North Slope producers. In 2001, Congress is again revisiting possible legislative changes that would speed construction of an Alaska gas pipeline. North Slope

In January 2001, Governor Knowles formed the Alaska Highway Natural Gas Policy Council. He directed the 28-member Council to

engage Alaskans and develop recommendations for promoting a natural gas pipeline project that maximizes benefits to all Alaskans.

In 2001, Foothills Pipelines owned by TransCanada and Westcoast Energy and six former members of the ANGTS consortium, subsidiaries of Duke Energy, El Paso, Enron, PG&E Corp., Sempra Energy and Williams Energy, announced they would reform the

2001

producers have proposed legislation that would set up a new procedure for permitting a gas pipeline. The State of Alaska has proposed modifications of the existing Alaska Natural Gas Transportation Act, which endorses a "southern" or Alaska Highway pipeline route.